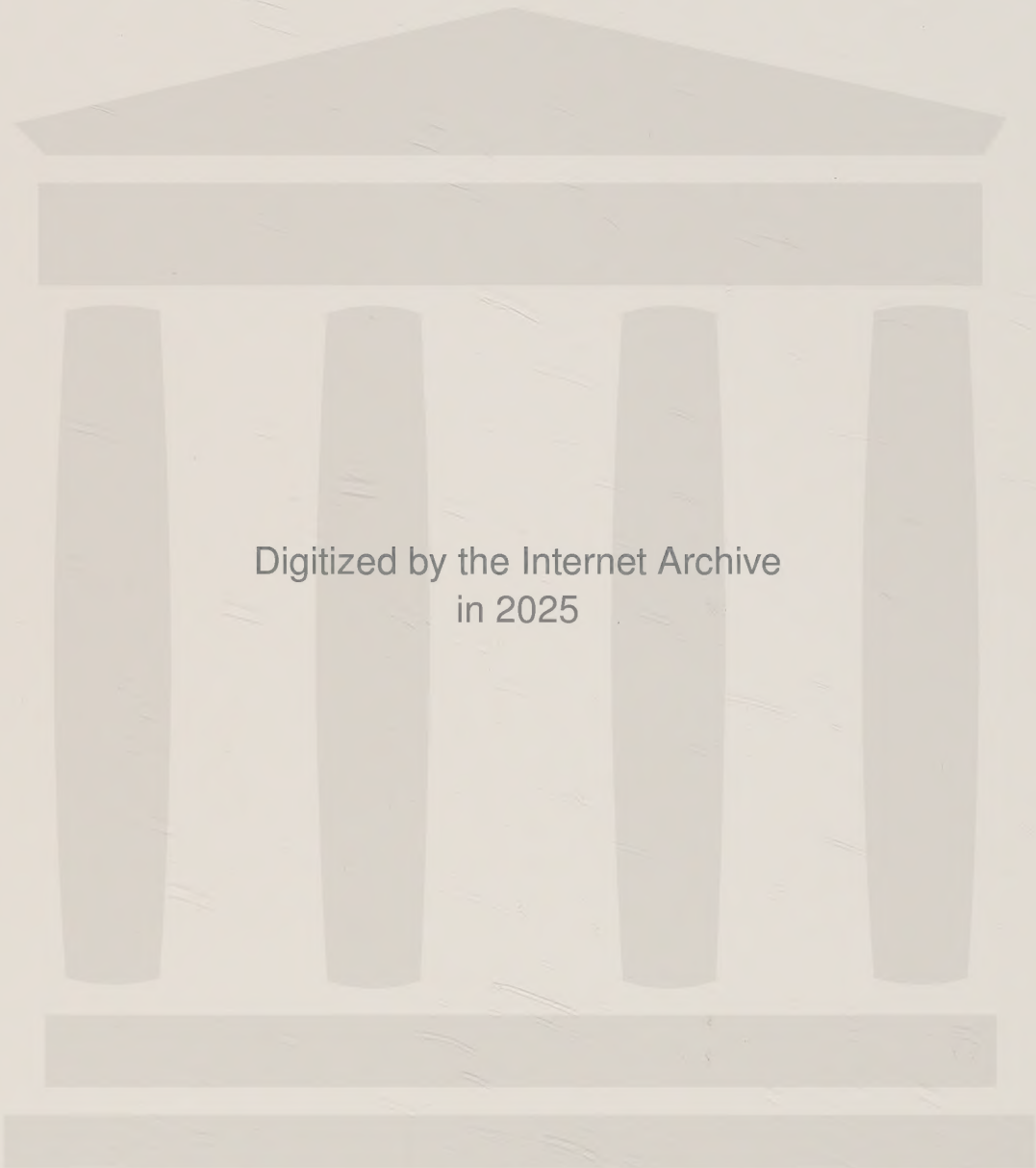
Office for National Statistics

No 41 | Spring 2009
ISSN 1465-1645

Health Statistics Quarterly

NATIONAL STATISTICS



Digitized by the Internet Archive
in 2025

https://archive.org/details/health-statistics-quarterly_spring-2009_41

Office for National Statistics

Health Statistics Quarterly

CENTRE FOR POLICY ON AGEING
19-23 IRONMONGER ROW
LONDON
EC1V 3QP
Tel: 020 7253 1787
Fax: 020 7490 4206

Contents

In this issue

In brief 3

New Code of Practice for Official Statistics 3
Cancer survival in the Spearhead Primary Care Trusts of England 3
Suicides 2007 4
Alcohol-related deaths 2007 4
Smoking and drinking behaviour and attitudes 4
Summary of children in the Millennium Cohort aged five 4

Health indicators 6

Trends in cancer survival in Spearhead Primary Care Trusts in England , 1998–2004 7
Libby Ellis, Bernard Rachet, Anjali Shah, Sarah Walters, Michel P Coleman, Nicola Cooper and Susan Westlake

Compare trends in cancer survival in Spearhead PCTs with the rest of England over the period 1998–2004

Death certification following MRSA bacteraemia, England, 2004–05 13
Levin Wheller, Cleone Rooney and Clare Griffiths

Examination of death certification following MRSA bacteraemia in England, 2004–05

Estimating conception statistics using gestational age information from NHS Numbers for Babies data 21
Yuan Huang Chow and Nirupa Dattani

For the first time, gestational age information is used for live births to re-estimate conception statistics for 2005

An investigation into the impact of question change on estimates of General Health Status and Healthy Life Expectancy 28
Michael Smith and Chris White

The effect of question change on general health prevalence and healthy life expectancy

Tables
List of tables 42
Notes to tables 43
Tables 1.1-6.3 44

Reports

Conceptions in England and Wales, 2007 66

Congenital anomalies notifications 2007, England and Wales 69

Contact points 74

Recent and future articles 75

No. 41
Spring 2009

Office for National Statistics

palgrave macmillan

ISBN 978–0–230–57715–2
ISSN 1465–1645

A National Statistics publication

National Statistics are produced to high professional standards as set out in the UK Statistics Authority's Code of Practice for Official Statistics. They are produced free from political influence.

Not all the statistics contained within this publication are national statistics because it is a compilation from various sources.

The inclusion of reports on studies by non-governmental bodies does not imply endorsement by the Office for National Statistics or any other government department of the views or opinions expressed, nor of the methodology used.

About us

The Office for National Statistics

The Office for National Statistics (ONS) is the executive office of the UK Statistics Authority, a non-ministerial department which reports directly to Parliament. ONS is the UK government's single largest statistical producer. It compiles information about the UK's society and economy which provides evidence for policy and decision-making and in the allocation of resources.

The Director of ONS is also the National Statistician.

Palgrave Macmillan

This publication first published 2008 by Palgrave Macmillan, Houndmills, Basingstoke, Hampshire RG21 6XS and 175 Fifth Avenue, New York, NY 10010, USA

Companies and representatives throughout the world.

Palgrave Macmillan is the global academic imprint of the Palgrave Macmillan division of St. Martin's Press, LLC and of Palgrave Macmillan Ltd. Macmillan® is a registered trademark in the United States, United Kingdom and other countries. Palgrave is a registered trademark in the European Union and other countries.

A catalogue record for this book is available from the British Library.

Contacts

This publication

For information about this publication, contact the editors:
Myer Glickman
Carol Summerfield
tel: 020 7014 2389, email: hsq@ons.gsi.gov.uk

Other customer and media enquiries

ONS Customer Contact Centre
Tel: 0845 601 3034
International: +44 (0)845 601 3034
Minicom: 01633 812399
Email: info@statistics.gsi.gov.uk
Fax: 01633 652747
Post: Room 1015, Government Buildings,
Cardiff Road, Newport, South Wales NP10 8XG
www.statistics.gov.uk

Subscriptions

Annual subscription £122, single issue £35
To subscribe, contact Palgrave Macmillan, tel: 01256 357893,
www.palgrave.com/ons

Copyright and reproduction

© Crown copyright 2009
Published with the permission of the Office for Public Sector Information (OPSI)

You may re-use this publication (excluding logos) free of charge in any format for research, private study or internal circulation within an organisation providing it is used accurately and not in a misleading context. The material must be acknowledged as Crown copyright and you must give the title of the source publication. Where we have identified any third party copyright material you will need to obtain permission from the copyright holders concerned.

For re-use of this material you must apply for a Click-Use Public Sector Information (PSI) Licence from:

Office of Public Sector Information, Crown Copyright Licensing and Public Sector Information, Kew, Richmond, Surrey TW9 4DU,
tel: 020 8876 3444, www.opsi.gov.uk/click-use/index.htm

Printing

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

Printed and bound in Great Britain by Latimer Trend & Company Ltd, Plymouth, Devon

Typeset by Bookcraft Ltd, Stroud, Gloucestershire

Dates for submissions

Title \ Issue	Spring	Summer	Autumn	Winter
Health Statistics Quarterly	by 11 Sept	by 11 Dec	by 22 Mar	by 21 June
Population Trends	by 23 Oct	by 2 Feb	by 4 May	by 26 July

Please send to:

Health Statistics Quarterly
Office for National Statistics
FG149
1 Myddleton Street
London
EC1R 1UW

in brief

New Code of Practice for Official Statistics

The new Code of Practice for Official Statistics was published by the UK Statistics Authority on 6 January 2009.The Authority has statutory responsibility under the *Statistics and Registration Service Act 2007* to prepare and publish this Code after due consultation.

The Code, along with a statement of the procedures to be followed in assessing statistics against it, was the subject of a 12-week public consultation between July and September 2008. Only those statistics the Authority judges to be compliant with the Code will be allowed to be designated as National Statistics in future.

Alongside the Code of Practice and the formal report on the consultation exercise, the Authority is publishing a further report which lists some 340 sets of official statistics not currently designated as National Statistics. The report identifies some of these statistics the Authority believes should be brought within the scope of the Code and assessed against it, with a view to designation as National Statistics. The Authority has a statutory duty to notify government ministers of such cases and will be following them up with the relevant government departments.

Just before Christmas, the Authority criticised a Home Office statement on knife crime statistics issued on 11 December. The Authority's analysis of this case appears in a paper prepared for the Authority's board at the time and was published on 6 January on the Authority's website. It draws out the ways in which the Home Office statement was inconsistent with the Code of Practice.

The Authority's Head of Assessment, Richard Alldritt, is responsible for assessing whether official statistics are compiled, released, and presented in a way that is consistent with the Authority's Code of Practice for Official Statistics, and whether to designate official statistics that have been assessed against the Code as National Statistics.

More information is available on the UK Statistics Authority website:

Code of Practice
www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html

Reports on the consultation exercise and on the priorities for designation as National Statistics
www.statisticsauthority.gov.uk/reports---correspondence/reports/index.html

Individual responses to the consultation

www.statisticsauthority.gov.uk/reports---correspondence/consultations/closed-consultations/consultation-on-the-code-of-practice-for-official-statistics--2008-.html

Monitoring and assessment note statement on knife crime statistics, 11December 2008
www.statisticsauthority.gov.uk/assessment/monitoring-and-assessment-notes/published-notes.html

Cancer survival in the Spearhead Primary Care Trusts of England

Figures for cancer survival in the Spearhead Primary Care Trusts (PCTs) of England, 1998–2005 were published by the Office for National Statistics (ONS) on 26 February 2009, on the Office for National Statistics website. These data update those published in September 2008 for 1998–2004.They have been produced in collaboration between the London School of Hygiene and Tropical Medicine and the National Cancer Intelligence Centre, ONS.

The 'Spearhead Group' of Local Authorities and Primary Care Trusts (PCTs) was selected by the Government in 2004 to be the focus of interventions to reduce health inequalities. The 70 Local Authorities, and 88 Trusts which mapped to them (now 62 PCTs following NHS reconfiguration in 2006) were chosen because they were in the lowest fifth in England for at least three of five key measures of health inequality – deprivation, male and female life expectancy, and mortality from cancer and cardiovascular disease.

The report compares one- and five-year survival from ten common cancers in patients resident in Spearhead PCTs, diagnosed during 2000–04 and followed up to the end of 2005, with those in the rest of England. These new data are presented along with an analysis of trends in survival over time. The report is available on the Office for National Statistics website at:
www.statistics.gov.uk/statbase/Product.asp?vlnk=14821

A more detailed assessment of trends in cancer survival in Spearhead PCTs is given in the article on page 7 of this edition of Health Statistics Quarterly.

Suicides 2007

An annual update on the number and rates of suicide in the UK, including data for 2007, was published by ONS on 27 January 2009.

Suicide rates in both men and women in the UK continued to fall in 2007, reaching their lowest level since 1991. The suicide rate for men in 2007 was 16.8 per 100,000 and this has steadily fallen from a peak in 1998 of 21.1 per 100,000. For women the rate was 5.0 per 100,000 in 2007 and rates have been consistently much lower than those of men. In recent years the highest suicide rates in men have been in those aged 15–44, while the highest rates among women have been in those aged 45–74.

Information is available on the Office for National Statistics website at:
www.statistics.gov.uk/cci/nugget.asp?id=1092
www.statistics.gov.uk/statbase/Product.asp?vlnk=13618

Alcohol-related deaths 2007

The number and rate of alcohol-related deaths in the UK were published by ONS on 27 January 2009, including data for 2007.

The trend in alcohol-related deaths is now levelling out following rapid increases since the early 1990s. There were 8,724 alcohol-related deaths in the UK in 2007, lower than in 2006, but more than double the 4,144 recorded in 1991. In 2007 the alcohol-related death rate for all persons was 13.3 per 100,000, compared with 6.9 per 100,000 in 1991. The alcohol-related death rate in men was 18.1 per 100,000 in 2007, more than double the rate of 8.7 per 100,000 for women. The death rate for men has almost doubled from 9.1 per 100,000 in 1991 while there has been steadier increase in the female rate, rising from 5.0 per 100,000 in 1991.

Information is available on the Office for National Statistics website at:
www.statistics.gov.uk/cci/nugget.asp?id=1091
www.statistics.gov.uk/statbase/Product.asp?vlnk=14496

Smoking and drinking behaviour and attitudes

Two annual reports on smoking and drinking behaviour and attitudes were published by ONS on 22 January 2009. They were: *Smoking and drinking among adults 2007*, taken from the General Household Survey (GHS) 2007 and *Drinking: adults' behaviour and knowledge in 2008*, taken from the Opinions (Omnibus) survey.

Current advice on drinking is that men should not drink regularly more than three to four units of alcohol and women should not drink regularly more than two to three units. In 2007, 37 per cent of adults (41 per cent of men and 34 per cent of women) exceeded the recommended daily limits for regular drinking on at least one day during the week before interview and 20 per cent of adults (24 per cent of men and 15 per cent of women) consumed more than double the benchmark on their heaviest drinking day of the week. The report also shows that more people in 'managerial and professional' households exceeded the daily limit on their heaviest drinking day of the week (43 per cent) than those in 'routine and manual' households (31 per cent).

The downward trend in smoking continued in 2007, with the overall prevalence of cigarette smoking among adults at its lowest recorded level of 21 per cent (22 per cent for men and 20 per cent for women). Smoking is most prevalent in the 20–24 age group (31 per cent) and becomes less prevalent as age increases, falling to 12 per cent of those aged 60 and over. In contrast to drinking, smoking was highest in households classified as 'routine and manual', where 27 per cent of adults smoked. Prevalence was lowest among those in 'managerial and professional' households at 15 per cent.

The ONS Opinions (Omnibus) Survey *Drinking: adults' behaviour and knowledge in 2008* asked people about where they drank on their heaviest drinking day in the previous week. The home was the most common place for alcohol consumption on that day, 45 per cent for men and 60 per cent for women.

The two reports are available on the Office for National Statistics website at:

Smoking and drinking among adults 2007
www.statistics.gov.uk/statbase/Product.asp?vlnk=5756

Drinking: adults' behaviour and knowledge in 2008
www.statistics.gov.uk/statbase/Product.asp?vlnk=6990

Summary of children in the Millennium Cohort aged five

The Millennium Cohort Study (MCS) interviewed over 15,000 children aged five across the UK and published a full report and initial findings in October. Data include responses from both parents, direct assessments of the cohort child's cognitive development and physical growth as well as evidence from teachers.

At the age of five over three-quarters of Study children were living with both of their natural parents, the majority of whom were married. A minority of five-year-olds were living with either a lone mother (17 per cent) or a natural mother and a step-father (4 per cent). The most common family change for this cohort between sweeps one (starting June 2001) and three (ending early 2007) was the arrival of a younger sibling, which happened in four families out ten.

The majority of Study children were in good health at the age of five, but there were differences across socio-economic groups. Poor children fared substantially worse than others in terms of both their reported level of general health and specific conditions.

In general boys fared worse than girls in terms of many health outcomes, and the gap was widest on variables such as speech problems and bedwetting, which reflect failure to achieve developmental milestones. Girls were more likely to be overweight or obese than boys at the age of five – as they had also been at the age of three.

Measurements of Body Mass Index puts overweight and obesity at 22 per cent overall at five, but suggests they are more weakly associated with economic inequality than many other health outcomes.

The full report *Millennium Cohort Study Third Survey: A User's Guide to Initial Findings* published in October 2008 is available at:
www.cls.ioe.ac.uk/news.asp?section=000100010003&item=473

Recent and forthcoming ONS releases

Recent releases

9 December
Birth Statistics 2007 (FM1 no. 36)
www.statistics.gov.uk/statbase/Product.asp?vlnk=5768

9 December
Population Trends No. 134 Winter 2008
www.statistics.gov.uk/statbase/Product.asp?vlnk=6303
Print copies available from Palgrave Macmillan 01256 357893

18 December
Cancer Statistics 2006 (MB1 no. 37)
www.statistics.gov.uk/statbase/Product.asp?vlnk=8843

22 January
Drinking: adults' behaviour and knowledge in 2008
www.statistics.gov.uk/statbase/Product.asp?vlnk=6990

22 January
Smoking and drinking among adults, 2007
www.statistics.gov.uk/statbase/Product.asp?vlnk=5756

27 January
Alcohol-related deaths in the UK, 2007
www.statistics.gov.uk/statbase/Product.asp?vlnk=14496

27 January
Suicide rates in the UK, 2007
www.statistics.gov.uk/statbase/Product.asp?vlnk=13618

12 February
Marriages 2007 in England and Wales
www.statistics.gov.uk/statbase/Product.asp?vlnk=14275

19 February
Congenital anomaly notifications 2007 (MB3 no. 22)
www.statistics.gov.uk/statbase/Product.asp?vlnk=5799

26 February
Cancer Survival in the Spearhead Primary Care Trusts of England, 1998–2005
www.statistics.gov.uk/statbase/Product.asp?vlnk=14821

26 February
Annual conceptions 2007: provisional
www.statistics.gov.uk/statbase/Product.asp?vlnk=15055

26 February
UK Electoral Statistics, 2008
www.statistics.gov.uk/statbase/Product.asp?vlnk=319

Forthcoming releases

26 March
Population Trends No. 135 Spring 2009
www.statistics.gov.uk/statbase/Product.asp?vlnk=6303
Print copies available from Palgrave Macmillan 01256 357893

26 March (provisional)
Marriages, divorces and adoptions 2006 (FM2 no. 34)
www.statistics.gov.uk/statbase/Product.asp?vlnk=581

31 March (provisional)
Mortality statistics: childhood, infant and perinatal 2006 (DH3 no. 40)
www.statistics.gov.uk/statbase/Product.asp?vlnk=6305

31 March
National population projections by marital status, 2006-based

15 April
Social Trends No. 39 2009 edition
www.statistics.gov.uk/statbase/Product.asp?vlnk=5748
Print copies available from Palgrave Macmillan 01256 302611

For further information, contact the ONS Customer Contact Centre
0845 601 3034, email info@statistics.gsi.gov.uk

Correction: Health Statistics Quarterly 40 Winter 2008

Page 91 Report: Cancer incidence and mortality in the United Kingdom and constituent countries, 2003–05

Errors have been found in the number of deaths reported for two cancer sites. These have been corrected and revised figures are presented below. These corrections affect the text on pages 91 and 95.

Page 91, last paragraph – 2nd sentence should read 'However, for females the mortality rate was lower for breast than for lung cancer (29 and 30 per 100,000 respectively).'

Page 95, last paragraph – last sentence should read 'The incidence and mortality rates for breast cancer were the lowest in the UK.'

Table 2 **Deaths from cancer and directly age-standardised mortality rates per 100,000 population: selected sites by sex and country, 2003–05**

ICD–10	Site description	Sex	United Kingdom		N Ireland	
			Number	Rate	Number	Rate
C50	Breast	F	12,525	28.6	304	28.0
C62	Testis	M	82	0.3	2	[3]

3 Directly age-standardised rates were considered unreliable and were not calculated when there were fewer than 20 deaths over three years in an area.

Health indicators

England and Wales

Figure A Population change (mid-year to mid-year)

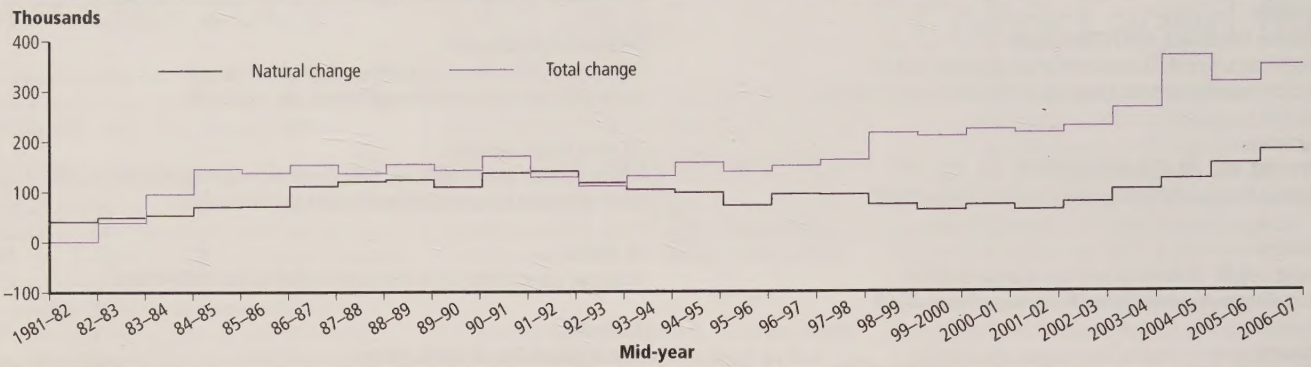


Figure B Age-standardised mortality rate[1]

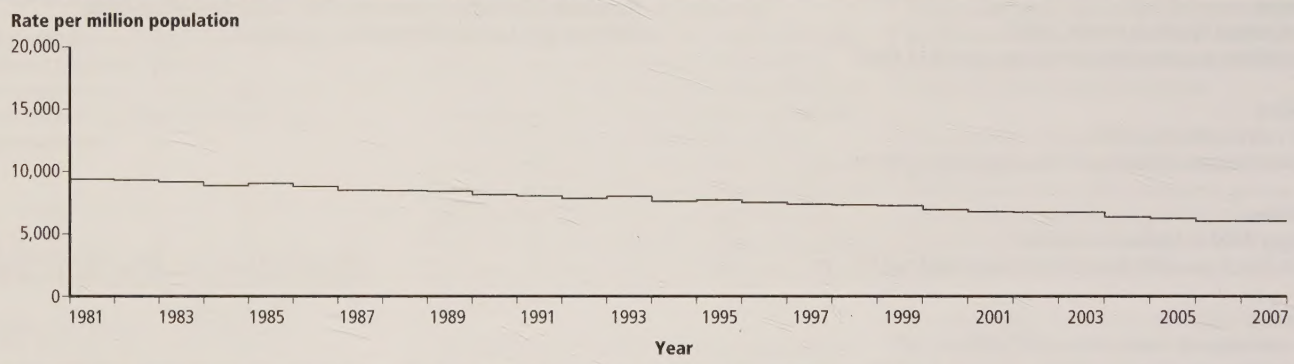


Figure C Infant mortality (under 1 year)

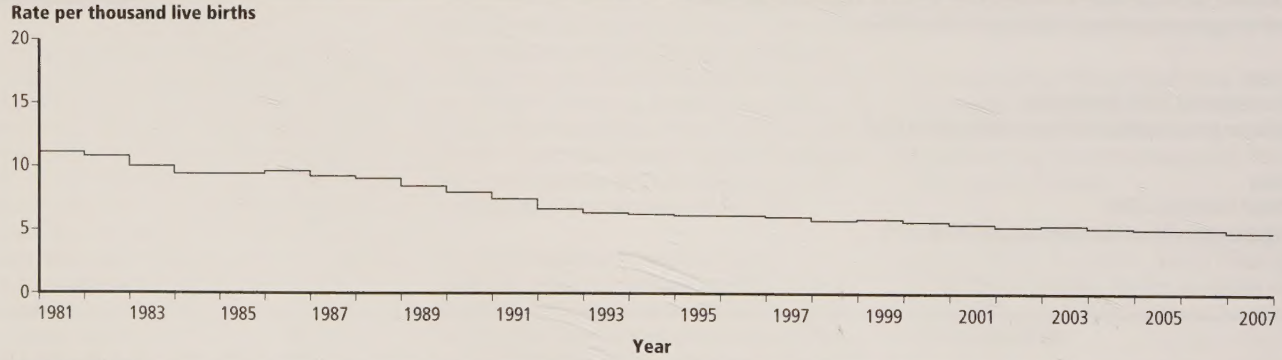
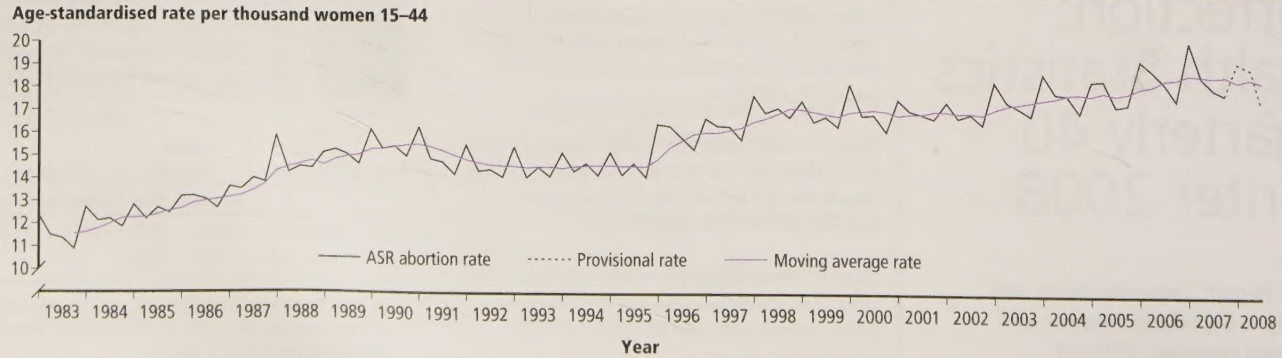


Figure D Age-standardised quarterly abortion rates – residents[2]



1 The age-standardised mortality rate for 2007 is based on mid-2007 population estimates published on 21 August 2007.

2 Rates for 2007 and March and June quarters 2008 are based on projected projections.

Trends in cancer survival in Spearhead Primary Care Trusts in England, 1998–2004

Libby Ellis, Bernard Rachet, Anjali Shah, Sarah Walters and Michel P Coleman
London School of Hygiene and Tropical Medicine
Nicola Cooper and Susan Westlake
Office for National Statistics

The Spearhead Primary Care Trusts (PCTs) are designated as those areas that face the greatest health challenges in England. They are intended to be the focus of interventions designed to reduce health inequalities, including those for cancer. One- and five-year relative survival estimates for cancer patients diagnosed between 1998 and 2004, and resident in a Spearhead PCT area, have been compared with those in the rest of England to assess the baseline trends in inequalities in cancer survival. Survival is consistently lower for patients resident in Spearhead PCT areas than for those resident in the rest of England, although trends in the difference between Spearhead PCTs and the rest of England suggest that the gap in survival has narrowed for most cancers.

Introduction

In 2004, the Government made tackling health inequalities a priority with publication of the Public Health White Paper *Choosing Health – making healthy choices easier.*[1] The Public Service Agreement target for 2010 was designed to address geographical inequalities in life expectancy, by narrowing the gap in health outcomes between the fifth of local authorities with the worst health and deprivation indicators and the population as a whole, by at least 10 per cent.[2]

On 19 November 2004, the Department of Health designated the 88 most health-deprived Primary Care Trusts (PCTs) in the National Health Service as the 'Spearhead' group among the 302 PCTs in existence in England at that time. Spearhead PCTs were those which overlapped geographically in whole or in part with the 70 local authorities (LAs) that faced the greatest health challenges, on the basis that the LA populations were in the lowest fifth of the 354 LAs in England for at least three of the following five measures: life expectancy at birth in males and in females, mortality rates from all circulatory disease and cancer in people aged under 75, and the average score in the Index of Multiple Deprivation 2004.[3] Spearhead PCTs are intended to be the focus of government interventions designed to reduce health inequalities. Progress towards these targets is assessed by changes in health outcomes in Spearhead areas. In May 2006, the number of PCTs in England was almost halved to 152. In September 2006, Spearhead PCTs were redefined as those overlapping in all or part of their territory with the original set of 70 deprived local authorities. Consequently, the number of Spearhead PCTs fell from 88 to 62 (Map 1).

The aim of this article is to compare baseline trends in cancer survival in the Spearhead PCTs with the rest of England, so the impact of interventions designed to reduce health inequalities can be assessed in due course.

Map 1 Spearhead Primary Care Trusts, 2006 boundaries, England

Data and methods

Cancer incidence data were provided by the National Cancer Registry at the Office for National Statistics (the National Cancer Intelligence Centre). Analyses included all adults (aged 15–99 years at diagnosis) resident in England who were diagnosed during 1998–2004 with one of ten common cancers (bladder, breast, cervix, colon, lung, oesophagus, ovary, prostate, rectum and stomach) (Box One) as a first, primary, malignant, invasive neoplasm, and who were followed up until 31 December 2005. Patients with a benign or *in situ* neoplasm, or a neoplasm of uncertain behaviour, were excluded. Patients were also excluded if they had previously had an invasive primary malignancy (except non-melanoma skin cancer) at any time since the origin of the National Cancer Registry in 1971 (see Rachet *et al*[4] for full details of exclusion criteria).

Box one

International Classification of Diseases (ICD) codes for selected cancers

Condition	ICD–10 codes[1]
Bladder	C67
Breast	C50
Cervix	C53
Colon	C18
Lung	C33, C34
Oesophagus	C15
Ovary	C56
Prostate	C61
Rectum	C19, C20
Stomach	C16

1 International Classification of Diseases, Tenth revision (ICD–10).

Relative survival

One- and five-year relative survival for each of the ten cancers was estimated separately for patients resident in Spearhead PCTs and the rest of England. Relative survival is the ratio of the observed (crude) survival of the cancer patients and the survival that would have been expected if those patients had experienced only the same age- and sex-specific mortality rates (background mortality) as the general population from which they are drawn.[5,6,7] Life tables containing all-cause death rates by single year of age and sex were used to reflect background mortality. Since background mortality also varies by geographic region and by socio-economic status, such life tables that were specific both for each Government Office Region (GOR) and for each category of deprivation were constructed, based on quintiles of the national distribution of the Townsend index,[8] at the Lower Super Output Area level. The life tables were constructed from the number of deaths in England during the period 2000–02 and the 2001 ONS mid-year population estimates. These life tables were used to represent background mortality during the period 1998–2004.

At the time of the study, follow-up data were available to 31 December 2005. This enabled estimation of one-year survival for all patients diagnosed in 1998–2004. In order to estimate five-year survival, complete analysis was used. Complete analysis is a composite measure of survival based on a series of interim measures: one-year survival for all patients diagnosed 1998–2004, survival up to two years for those diagnosed 1998–2003, up to three years for those diagnosed 1998–2002, up to four years for those diagnosed 1998–2001 and up to five years for those diagnosed 1998–2000. This approach enables inclusion of more patients in the analysis and facilitates the study of trends over time. A maximum likelihood approach of calculating crude and relative survival from individual tumour records[5] was applied. using an algorithm developed for previous analyses.[9]

Age-standardisation

Relative survival varies with age at diagnosis, and the age distribution of cancer cases differs geographically and over time, so relative survival estimates have been age-standardised to improve their comparability. Direct age-standardisation was used to facilitate comparison with previously published data. For each cancer, the standard weights for each age group were taken as the proportion of patients diagnosed in that age group in England and Wales during 1986–90.[9]

Trends in survival

To examine trends in survival over time, survival was estimated in three overlapping five-year periods (1998–2002, 1999–2003, 2000–04). This enables short-term fluctuations in survival to be smoothed, and provides more robust survival estimates. The simple arithmetic difference between relative survival for patients in Spearhead PCTs and in the rest of England is expressed as a percentage point, for example, 12 per cent would be expressed as 2 percentage points (not 20 per cent) higher than 10 per cent. The difference is shown as negative if survival is lower in Spearhead PCTs than in the rest of England. Variance-weighted least squares regression was used to estimate the mean change in survival separately in Spearhead PCTs and in the rest of England over the three calendar periods. The same approach was used to calculate the mean change in the differences in survival between Spearhead PCTs and the rest of England over the period 1998–2004.

Results

In total, over 900,000 cancer patients were included in the analyses, of whom 36 per cent were resident in the 62 Spearhead PCTs. For most cancers, over 1,000 cases a year were diagnosed in the Spearhead PCTs. For cancer of the breast, about 10,000 women in the Spearhead PCTs were diagnosed in each year. Even for the least frequent of the ten cancers examined (oesophagus), 700 or more cases per year in Spearhead PCTs could be included in the analysis.

Trends in survival in Spearhead PCTs and the rest of England

Overall, relative survival estimates improved slightly during the period 1998–2004 for both Spearhead PCTs and the rest of England. One of the largest increases was for cancer of the oesophagus. One-year survival increased by an average of 1.4 percentage points per five-year period for men and 1.0 percentage point per five-year period for women resident in Spearhead PCTs, and by 1.4 percentage points for men and 1.3 percentage points for women resident in the rest of England. For cancer of the stomach in men, one-year survival improved by approximately 1.0 percentage point per five-year period in both Spearhead PCTs and the rest of England (Table 1).

Five-year survival for men with prostate cancer also increased significantly, by an average of 2.5 percentage points per five-year period in Spearhead PCTs and 1.7 percentage points in the rest of England. For women with breast cancer, five-year survival increased by an average of 0.8 percentage points and 0.7 percentage points per five-year period in Spearhead PCTs and the rest of England, respectively (Table 2).

Table 1 One-year age-standardised[1] relative survival (per cent) for adults[2] diagnosed during 1998–2004, ten common cancers, by sex, calendar period of diagnosis, Spearhead Primary Care Trusts[3] and rest of England[4]

		1998–2002					1999–2003					2000–2004					Trends (1998–2004[1])					
																	Mean change in survival				Change in difference	
		Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			
Cancer[5]		No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	Per cent	p-value	Per cent	p-value	Per cent	p-value
Bladder	Males	11,616	77.7	21,022	79.2	**–1.5**	11,175	78.0	19,969	78.0	–0.1	10,509	77.1	18,945	77.2	–0.1	–0.3	0.33	**–1.0**	0.00*	0.7	0.07
	Females	4,850	67.4	7,886	71.1	**–3.7**	4,593	66.1	7,651	69.1	**–3.0**	4,308	65.8	7,261	67.1	–1.3	–0.8	0.12	**–2.0**	0.00*	1.2	0.08
Breast	Females	53,939	93.4	107,197	94.1	**–0.7**	55,092	93.7	109,522	94.3	**–0.6**	56,178	94.1	110,401	94.6	**–0.5**	**0.3**	0.00*	**0.3**	0.00*	0.1	0.42
Cervix	Females	4,996	81.6	7,000	82.7	–1.1	4,936	81.3	6,843	82.2	–0.9	4,791	81.0	6,664	82.3	–1.4	–0.3	0.43	–0.2	0.57	–0.1	0.82
Colon	Males	14,507	66.4	26,674	69.3	**–3.0**	14,729	66.7	27,031	69.2	**–2.6**	14,794	67.0	27,423	69.7	**–2.7**	0.3	0.29	0.2	0.37	0.1	0.74
	Females	13,731	66.0	26,804	68.9	**–3.0**	13,557	66.6	26,774	69.3	**–2.7**	13,569	67.2	26,903	69.4	**–2.2**	**0.6**	0.04	0.2	0.28	0.4	0.28
Lung	Males	35,173	24.2	49,221	25.9	**–1.8**	34,497	24.8	49,100	26.4	**–1.5**	33,872	25.4	48,935	26.7	**–1.2**	**0.6**	0.00*	**0.4**	0.01	0.3	0.23
	Females	23,013	26.5	30,227	27.7	**–1.2**	23,188	27.4	31,141	28.7	**–1.3**	23,377	28.2	31,629	29.3	**–1.1**	**0.8**	0.00*	**0.8**	0.00*	–	0.93
Oesophagus	Males	6,260	28.9	11,177	33.1	**–4.2**	6,416	30.4	11,671	35.0	**–4.6**	6,612	31.8	12,026	35.8	**–4.0**	**1.4**	0.00*	**1.4**	0.00*	0.1	0.86
	Females	3,929	31.8	6,766	34.5	**–2.7**	3,965	32.7	6,849	35.2	**–2.6**	3,921	33.7	6,778	37.1	**–3.3**	1.0	0.08	**1.3**	0.00*	–0.3	0.68
Ovary	Females	9,137	66.2	17,057	67.9	**–1.7**	9,200	66.3	17,231	68.2	**–2.0**	9,159	66.8	17,161	68.7	**–1.9**	0.3	0.40	0.4	0.10	–0.1	0.78
Prostate	Males	38,056	89.6	76,513	90.5	**–0.8**	40,341	90.6	81,988	91.1	**–0.5**	42,959	91.5	87,182	91.6	–0.1	**0.9**	0.00*	**0.5**	0.00*	**0.4**	0.03
Rectum	Males	11,860	72.2	18,769	76.1	**–3.9**	11,803	73.2	18,949	76.4	**–3.3**	11,896	73.3	19,189	76.6	**–3.3**	0.5	0.10	0.2	0.34	0.3	0.47
	Females	7,458	74.3	12,728	76.8	**–2.5**	7,417	75.1	12,671	77.1	**–2.0**	7,264	75.4	12,691	77.3	**–1.9**	0.5	0.16	0.2	0.34	0.3	0.51
Stomach	Males	9,841	33.8	13,468	36.2	**–2.4**	9,520	34.8	13,113	37.3	**–2.5**	9,209	35.8	12,697	37.8	**–2.0**	**1.0**	0.01	**0.8**	0.01	0.2	0.66
	Females	5,358	34.5	7,107	38.0	**–3.5**	5,218	35.8	6,959	38.3	**–2.4**	5,106	36.5	6,807	38.2	–1.7	**1.0**	0.05	0.1	0.83	0.9	0.19

1 Cancer survival varies with age at diagnosis, so the survival estimates for all ages (15–99 years) have been age-standardised to control for differences in the age profile of cancer patients between geographical areas and over time.
2 Aged 15–99 years at diagnosis.
3 On 19 November 2004, the Department of Health named the most health-deprived Primary Care Trusts (PCTs) in England as the Spearhead Group.
4 All other Primary Care Trusts (PCTs) in England not included in the Spearhead Group.
5 See Box One for the International Classification of Diseases, Tenth revision (ICD–10) codes.
6 Patients included in the analysis; for exclusion criteria see Reference 9.
7 The arithmetic difference between relative survival for patients resident in Spearhead PCTs and for those in the rest of England. A negative number implies lower survival in Spearhead PCTs than the rest of England.
Numbers in bold indicate a significant difference at the 5 per cent level.
Note: *Statistically significant (p-value <0.001).

In contrast, relative survival for bladder cancer fell in both Spearhead PCTs and the rest of England. This fall is particularly evident in women, where the average drop in five-year survival was –5.5 percentage points per five-year period for Spearhead PCTs and –2.6 percentage points for the rest of England.

Trends in the difference in survival between Spearhead PCTs and the rest of England

For patients diagnosed during 1998–2002, one-year survival was significantly lower in Spearhead PCT residents for 15 of the 16 sex-cancer combinations. For those diagnosed during 2000–2004, one-year survival was significantly lower in Spearhead PCT residents for 11 of the 16 sex-cancer combinations.

For five-year survival, estimates were significantly lower in Spearhead PCTs for eight of the 16 sex-cancer combinations in the period 1998–2002, but for just four of the 16 sex-cancer combinations for those diagnosed during 2000–04.

For the majority of cancers, the difference in one-year survival between Spearhead PCTs and the rest of England fell over the period 1998–2004. The exceptions to this are cancers of the cervix, oesophagus (women) and ovary, where the difference has widened, although the change was not statistically significant. A wider difference between Spearhead PCTs and the rest of England is indicated by a negative change in difference (Table 1).

For five-year survival, the difference between Spearhead PCTs and the rest of England narrowed for 11 of 16 sex-cancer combinations. For cancer of the cervix, colon (men), oesophagus (men) and rectum (men) the difference in five-year survival widened, although this was not statistically significant. However, for cancer of the bladder (women) the widening difference between Spearhead PCTs and the rest of England was statistically significant ($P \leq 0.05$) (Table 2).

Discussion

Analyses were based on large numbers of patients, even for the least common cancers, and survival estimates for these ten cancers can be considered reasonably robust. Estimates of the difference in survival between Spearhead PCTs and the rest of England were also robust.

Overall, there have been slight improvements in survival over the period 1998–2004 for most of the ten cancers, both for patients resident in Spearhead PCTs and for those resident in the rest of England. Similar levels of improvement in one-year survival were seen in Spearhead PCTs and the rest of England for cancers of the breast, colon (men), lung (women), oesophagus (men), and ovary. At five years after diagnosis, similar levels of improvement in survival in Spearhead PCTs and the rest of England were seen for cancers of the breast, colon (women), lung (women), ovary, and rectum (men).

Table 2

Five-year age-standardised[1] relative survival (per cent) for adults[2] diagnosed during 1998–2004, ten common cancers, by sex, calendar period of diagnosis, Spearhead Primary Care Trusts[3] and rest of England[4]

		1998–2002					1999–2003					2000–2004					Trends (1998–2004)					
																	Mean change in survival				Change in difference	
		Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			Spearhead PCTs		Rest of England			
Cancer[5]		No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	No. of patients[6]	Per cent	No. of patients[6]	Per cent	Diff[7]	Per cent	p-value	Per cent	p-value	Per cent	p-value
Bladder	Males	11,616	59.0	21,022	60.7	**–1.7**	11,175	59.0	19,969	59.0	–	10,509	57.0	18,945	57.8	–0.8	–0.9	0.09	**–1.5**	0.00*	0.6	0.34
	Females	4,850	51.1	7,886	53.6	**–2.5**	4,593	48.6	7,651	50.7	–2.1	4,308	44.8	7,261	48.4	**–3.6**	**–5.5**	0.00*	**–2.6**	0.00*	**–2.9**	0.00
Breast	Females	53,939	78.8	107,197	79.8	**–1.0**	55,092	79.7	109,522	80.5	**–0.8**	56,178	80.5	110,401	81.2	**–0.7**	**0.8**	0.00*	**0.7**	0.00*	0.1	0.61
Cervix	Females	4,996	63.7	7,000	63.5	0.3	4,936	63.5	6,843	63.1	0.3	4,791	63.3	6,664	64.0	–0.7	–0.2	0.71	0.2	0.65	–0.4	0.56
Colon	Males	14,507	47.4	26,674	48.7	–1.3	14,729	47.6	27,031	48.9	–1.3	14,794	47.7	27,423	49.5	**–1.9**	0.2	0.70	0.4	0.21	–0.2	0.69
	Females	13,731	48.5	26,804	49.6	–1.0	13,557	49.1	26,774	50.2	–1.1	13,569	49.3	26,903	50.2	–0.9	0.4	0.34	0.3	0.26	0.1	0.91
Lung	Males	35,173	6.1	49,221	6.6	**–0.5**	34,497	6.3	49,100	6.7	–0.3	33,872	6.5	48,935	6.7	–0.1	0.2	0.06	–	0.86	0.2	0.19
	Females	23,013	7.6	30,227	7.9	–0.3	23,188	8.0	31,141	8.1	–0.1	23,377	8.2	31,629	8.4	–0.2	**0.3**	0.05	0.2	0.10	0.1	0.74
Oesophagus	Males	6,260	7.7	11,177	8.5	–0.8	6,416	8.3	11,671	9.2	–0.9	6,612	*9.7*	12,026	*10.2*	–0.5	..	..	..	..	–0.2	0.69
	Females	3,929	9.5	6,766	11.9	**–2.4**	3,965	10.2	6,849	12.2	**–2.1**	3,921	*9.1*	6,778	*10.5*	–1.4	..	..	..	..	0.5	0.45
Ovary	Females	9,137	39.2	17,057	37.7	**1.5**	9,200	39.8	17,231	38.2	**1.6**	9,159	39.8	17,161	38.3	1.5	0.3	0.48	0.3	0.37	–	0.96
Prostate	Males	38,056	70.5	76,513	72.0	**–1.4**	40,341	72.9	81,988	73.7	–0.8	42,959	75.4	87,182	75.4	0.1	**2.5**	0.00*	**1.7**	0.00*	0.7	0.06
Rectum	Males	11,860	47.6	18,769	51.0	**–3.5**	11,803	48.8	18,949	52.0	**–3.2**	11,896	49.1	19,189	52.7	**–3.6**	0.8	0.11	**0.8**	0.03	–0.1	0.94
	Females	7,458	50.9	12,728	53.3	**–2.4**	7,417	52.1	12,671	53.6	–1.5	7,264	53.4	12,691	53.8	–0.4	**1.2**	0.03	0.3	0.52	0.9	0.18
Stomach	Males	9,841	13.1	13,468	13.1	–	9,520	13.4	13,113	13.5	–0.2	9,209	14.2	12,697	13.3	0.9	0.6	0.10	0.2	0.56	0.4	0.37
	Females	5,358	15.4	7,107	16.3	–0.9	5,218	15.8	6,959	16.8	–1.1	5,106	16.0	6,807	16.6	–0.6	0.3	0.54	0.1	0.74	0.2	0.81

1 Cancer survival varies with age at diagnosis, so the survival estimates for all ages (15–99 years) have been age-standardised to control for differences in the age profile of cancer patients between geographical areas and over time.
2 Aged 15–99 years at diagnosis.
3 On 19 November 2004, the Department of Health named the most health-deprived Primary Care Trusts (PCTs) in England as the Spearhead Group.
4 All other Primary Care Trusts (PCTs) in England not included in the Spearhead Group.
5 See Box One for the International Classification of Diseases, Tenth revision (ICD–10) codes.
6 Patients included in the analysis; for exclusion criteria see Reference 9.
7 The arithmetic difference between relative survival for patients resident in Spearhead PCTs and for those in the rest of England. A negative number implies lower survival in Spearhead PCTs than the rest of England.
Numbers in bold indicate a significant difference at the 5 per cent level.

Note: *Statistically significant (p-value <0.001).
Estimates in *italics* are unstandardised rates. Age-standardisation was not possible for these cancer-sex combinations due to small number of deaths.
.. Where the estimates are standardised for one period and unstandardised for the other no mean change in survival is reported.

In contrast, bladder cancer survival fell, both for patients resident in Spearhead PCTs and for those resident in the rest of England. This fall was particularly evident in women, and at five years since diagnosis, the fall was greater in Spearhead PCTs. This may be a consequence of changes in the spectrum of what is recorded as an invasive malignant tumour, which can affect the interpretation of time trends in survival.[10] A shift towards a more malignant spectrum of bladder tumours being classified as invasive in the cancer registries may partly explain the fall in bladder cancer survival, but it does not explain why the difference in survival between Spearhead PCTs and the rest of England is widening for women.

Despite the overall improvements, survival was consistently lower for patients resident in Spearhead PCTs than for those resident in the rest of England. However, the number of cancers for which survival is significantly lower in Spearhead PCTs fell over the period examined, providing some evidence of a narrowing of the survival deficit.

Analysis of trends in the difference between Spearhead PCTs and the rest of England over the period 1998–2004 suggests that the difference in one-year survival has narrowed for most cancers. There are exceptions, and the difference in survival between Spearhead PCTs and the rest of England has widened for some cancers, although not significantly so. Conversely, the difference in five-year survival has widened significantly for cancer of the bladder in women, as a result of greater falls in survival in Spearhead PCTs than in the rest of England.

Conclusion

Trends in survival over the period 1998–2004 show some improvement for most of the ten cancers examined, both for patients resident in Spearhead PCTs and for those resident in the rest of England. Trends in the difference between Spearhead PCTs and the rest of England suggest that the gap in survival has narrowed for most cancers, although survival is consistently lower for patients resident in Spearhead PCTs than for those resident in the rest of England.

Key findings

- Survival improved for most of the ten cancers over the period 1998–2004, both for patients resident in Spearhead PCTs and for those resident in the rest of England
- Survival is consistently lower for patients resident in Spearhead PCTs than for those resident in the rest of England
- The difference in survival between Spearhead PCTs and the rest of England has fallen for most cancers over the period 1998–2004

Acknowledgements

The National Cancer Intelligence Centre at the Office for National Statistics and the London School of Hygiene and Tropical Medicine wish to acknowledge the work of the regional cancer registries in England, which provide the raw data for these analyses.

Email correspondence to: libby.ellis@lshtm.ac.uk

References

1. Department of Health (2004) *Choosing Health: Making healthy choices easier*, Department of Health: London.
2. Department of Health (2003) *Tackling health inequalities: a programme for action*, Department of Health: London.
3. Department of the Environment, Transport and the Regions (2000) *Measuring multiple deprivation at the small area level: the indices of deprivation 2000*, Department of the Environment, Transport and the Regions: London.
4. Rachet B, Woods L M, Mitry E *et al* (2008) 'Cancer survival in England and Wales at the end of the 20th century', *British Journal of Cancer* Vol. **99 Suppl 1**, 02–10.
5. Estève J, Benhamou E, Croasdale M and Raymond L (1990) 'Relative survival and the estimation of net survival: elements for further discussion', *Statistics in Medicine* **9**, 529–38.
6. Ederer F, Axtell L M and Cutler S J (1961) 'The relative survival: a statistical methodology', *Journal of the National Cancer Institute Monographs* **6**, 101–21.
7. Cutler S J and Ederer F (1958) 'Maximum utilisation of the life table method in analyzing survival', *Journal of Chronic Diseases* **8**, 699–712.
8. Townsend P (1974) 'Inequality and the health service', *Lancet* **1 (7868)**, 1179–90.
9. Coleman M P, Babb P, Damiecki P *et al* (1999) *Cancer survival trends in England and Wales 1971–1995: deprivation and NHS Region*, Studies on Medical and Population Subjects no. **61**, The Stationery Office: London.
10. Shah A, Rachet B, Mitry E *et al* (2008) 'Survival from bladder cancer in England and Wales up to 2001', *British Journal of Cancer*, Vol. **99 Suppl 1**, 86–89.

Death certification following MRSA bacteraemia, England, 2004–05

Layla Wheller, Cleone Rooney and Clare Griffiths
Office for National Statistics

This study examined factors affecting whether or not meticillin resistant *Staphylococcus aureus* (MRSA) is recorded on the death certificate of individuals who died following a laboratory confirmed MRSA bacteraemia and compared this with another organism, *Streptococcus pneumoniae*. The study included all patients with a positive MRSA or *S. pneumoniae* bacteraemia reported to the Health Protection Agency between 1 January 2004 and 31 December 2005 and linked to a death registered up to 31 March 2006. It was an opportunistic analysis of infection surveillance records and death registrations that had been linked for other purposes. Certifiers are most likely to record MRSA on the death certificate if they believe that a large number of conditions contributed to the patient's death, and if the patient dies between 2 and 15 days following a positive blood culture. Certifiers do not appear to be deliberately omitting MRSA from death certificates; rather they report the clinical manifestation of infection or disease the patient died from, not the microbiological diagnosis. Certifiers were significantly less likely to mention *S. pneumoniae* than MRSA.

Introduction

Public, political and media interest in measuring the contribution of health care associated infections to mortality has grown and intensified over the past decade. There are no routine data which directly measure this. Death certificates very rarely state where or how any infection was acquired. Invasive infection with meticillin resistant *Staphylococcus aureus* (MRSA) is used as one of several indicators of incidence of health care associated infections.

The Office for National Statistics (ONS) has published figures on the numbers of death certificates in England and Wales on which MRSA infection of any body site is mentioned, and the number for which it is selected as the underlying cause of death, annually since 2004, following initial analysis by colleagues at the Health Protection Agency (HPA).[1] The published data series begins in 1993, because it is only from that year that the cause of death text from death certificates and International Classification of Diseases (ICD) codes for all the conditions on the certificate are stored electronically and available for analysis. MRSA infections may be coded to a range of ICD codes, depending on the body site or clinical disease (Boxes One and Two). Some of these codes are specific for *Staphylococcus aureus* infection (for example, A41.0 septicaemia due to *Staphylococcus aureus*), but others are not (for example, N39.0 urinary tract infection, site not specified). None of the codes used in mortality coding during the period of this study was specific for meticillin resistance. Identifying death certificates mentioning MRSA infection therefore involves a combination of searching ICD codes and text. MRSA is usually recorded as the underlying cause of death on between a quarter and a third of certificates that mention MRSA at all.[2,3,4]

Box one

ICD–10 codes specifically relating to *Staphylococcus* infection

Code	Text
A05.0	Foodborne staphylococcal intoxication
A41.0–A41.2	Septicaemia due to *staphylococcus aureus*/other specified staphylococcus/unspecified staphylococcus
A49.0	Staphylococcal infection, unspecified
B95.6–B95.8	*Staphylococcus aureus*/other staphylococcus/unspecified staphylococcus as the cause of diseases classified to other chapters
G00.3	Staphylococcal meningitis
J15.2	Pneumonia due to staphylococcus
L00	Staphylococcal scalded skin syndrome
M00.0	Staphylococcal arthritis and polyarthritis
P23.2	Congenital pneumonia due to staphylococcus
P36.2	Sepsis of newborn due to staphylococcus aureus

Box two

ICD–10 codes related to infection, but not specifically *Staphylococcus*

Code	Text
A04.8	Other specified bacterial intestinal infections
A38	Scarlet fever
A48.3	Toxic shock syndrome
G06.1	Intraspinal abscess and granuloma
G04.2	Bacterial meningoencephalitis and meningomyelitis, not elsewhere classified
I30.1	Infective pericarditis
I38	Endocarditis, valve unspecified
J03.8	Acute tonsillitis due to other specified organisms
J86	Pyothorax
K12.2	Cellulitis and abscess of mouth
K14.0	Glossitis
L03	Cellulitis
L08.9	Local infection of skin and subcutaneous tissue, unspecified
M60.0	Infective myositis
M86	Osteomyelitis
M46.2	Osteomyelitis of vertebra
M71.1	Other infective bursitis
N39.0	Urinary tract infection, site not specified
T80.2	Infections following infusion, transfusion and therapeutic injection
T81.4	Infection following a procedure, not elsewhere classified
T82.6	Infection and inflammatory reaction due to cardiac valve prosthesis
T82.7	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts
T83.5	Infection and inflammatory reaction due to prosthetic device, implant and graft in urinary system
T83.6	Infection and inflammatory reaction due to prosthetic device, implant and graft in genital tract
T84.5	Infection and inflammatory reaction due to internal joint prosthesis
T84.6	Infection and inflammatory reaction due to internal fixation device [any site]
T84.7	Infection and inflammatory reaction due to other internal orthopaedic prosthetic devices, implants and grafts
T85.7	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts
T87.4	Infection of amputation stump
T88.0	Infection following immunization

The number of death certificates in England and Wales mentioning MRSA showed a steady rise between 1993 and 2005, with a particularly large rise between 2004 and 2005 and a levelling off in 2006.[2,3,4] It has been suggested that some of this rise may be due to increased awareness and reporting by certifying doctors and coroners, in response to increased professional and public concern and media attention.

Updated guidance on death certification from the ONS Death Certification Advisory Group (DCAG), including a section on health care associated infections, was published in *Association of Clinical Pathologists News* in May 2005[5] and on the General Register Office website in June 2005.[6] This was followed by a note from the Chief Medical Officer on certifying deaths involving MRSA in the *CMO Update* (number 42), which was sent to all registered doctors in July 2005, drawing their attention to the DCAG guidance.[7]

There is a popular perception that mortality statistics underestimate the contribution of MRSA to death and that doctors omit MRSA from death certificates because of its perceived links with standards of health care. There are other reasons why MRSA might not be on the death certificate. Certifiers should only mention those diseases and conditions that contributed to death.[6,8,9] MRSA bacteraemia tends to occur in patients who are already seriously ill and have invasive treatment. The certifier may judge that the patient would have died from his underlying disease and/or other complications anyway and that the MRSA bacteraemia did not contribute significantly to the outcome. The certifier may include only the disease or manifestation of infection, for example septicaemia or pneumonia, and not the organism responsible. The certifier may not know the microbiological diagnosis or antibiotic resistance because the patient died before the laboratory report was available or the report was not forwarded on to the certifier when the patient did not die in the hospital where the test was done.

Until now, ONS has only had information from the death certificate, and so could only count deaths with MRSA mentioned. This article describes an analysis of data from national surveillance reports to the HPA of MRSA bacteraemia from laboratories in England which were linked to ONS data from death registrations by HPA as part of a study of mortality following MRSA bacteraemia. The proportion of deaths following laboratory-confirmed MRSA bacteraemia for which MRSA and/or septicaemia is mentioned on the death certificate were determined, and the determinants of whether or not the MRSA infection is mentioned on the certificate were explored.

To test whether doctors are less likely to mention MRSA than other micro-organisms because of its perceived links with health care, the likelihood of having MRSA reported was compared with the likelihood for *Streptococcus pneumoniae* infection. MRSA is largely hospital acquired, whereas *S. pneumoniae* is largely community acquired. Though both can give rise to serious disease, MRSA usually does so in patients who are already seriously ill with another condition, whereas *S. pneumoniae* can do so in previously healthy individuals.

Methods

Records of MRSA or *S. pneumoniae* positive blood cultures reported to the HPA by laboratories in England during the period 1 January 2004 to 31 December 2005 were linked by HPA to ONS data on deaths registered in the period 1 January 2004 to 31 March 2006 using a probabilistic record linkage method.[10] Both MRSA and *S. pneumoniae* infection records were identified through routine laboratory reporting, although *S. pneumoniae* records were also supplemented with isolates referred to the national reference laboratory (HPA Streptococcal and Diptheria Reference Unit). These voluntary laboratory data include individual identifiers, whereas the mandatory MRSA bacteraemia surveillance did not until October 2005.

Analyses were restricted to individuals who died after a single episode of bacteraemia during this time, to identify cases of acute rather than recurrent infection. ICD–10 codes and text for all of the conditions on the death certificate were searched to find any mention of MRSA, *Staphylococcus aureus*, *Streptococcus pneumoniae*/pneumococcus (including alternative terms and spellings), or septicaemia or pneumonia without specification of the micro-organism involved, using established methods.[1,2,3] The codes used to identify various organisms are outlined in Boxes One to Five.

Box three

ICD–10 codes specifically related to *Streptococcus pneumoniae*

Code	Text
A40.3	Septicaemia due to *Streptococcus pneumoniae*
G00.1	Pneumococcal meningitis
J13	Pneumonia due to *Streptococcus pneumoniae*

Box four

ICD–10 codes related to streptococcal infection but not specifically related to *Streptococcus pneumoniae*

Code	Text
A49.1	Streptococcal infection, unspecified

Box five

ICD–10 codes for septicaemia (unspecified) and pneumonia (unspecified)

Code	Text
A41.9	Septicaemia, unspecified
J15.9	Bacterial pneumonia, unspecified
J18.0–J18.9	Pneumonia, organism unspecified
J90	Pleural effusion, not elsewhere specified
P23.6	Congenital pneumonia due to other bacterial agents

The relationships between the main explanatory variables and whether MRSA was recorded on the death certificate were examined using univarate analysis. Subsequently, a logistic regression model was developed including age and sex, and those variables with the strongest univariate relationships. A two-tailed t-test for comparing two independent proportions was used to compare the proportion of certificates mentioning MRSA with the proportion mentioning *S. pneumoniae*.

We analysed the effects of age, sex, days from specimen date to date of death, the number of conditions recorded on the death certificate, calendar period of death, certifier (doctor or coroner), whether or not a post mortem was carried out, and whether the death happened in hospital or not.

'Age in years' was split into the six age groups used in the ONS annual reports on deaths involving MRSA. Ages 0–44 are grouped together as there are very few deaths involving MRSA under age 45. Subsequent age groups are at ten-year intervals until the open ended '85 and over' group.

Time between the blood specimen and death ('lag in days') was split into six groups (categorised as 0–1, 2–15, 16–29, 30–43, 44–71 and 72+ days). This categorisation fits with the *a priori* assumption that no test results identifying the organism are likely to be available in the first 48 hours after a specimen was taken and that, additionally, MRSA was more likely to be recorded if death occurred during the phase of acute infection (that is, in the first two weeks). Subsequent categories are also at 14-day intervals until 44–71 days, which is a 28-day period to allow for a low number of cases in this category.

Changes in reporting over time were analysed by examining calendar month and year of death, as well as whether the death occurred before or after *CMO Update 42*.[7] Date of death, not specimen date, was examined in order to look for changes in the practice of doctors and coroners completing certificates. After this univariate analysis, the same variables were assessed controlling for the lag between specimen and death, since deaths in the later part of the study period were likely to have occurred a longer time after the specimen than those at the beginning. The effect of limiting the analysis of changes in reporting over time to a lag period of 2 to 15 days, when certifiers would be likely to have the microbiological diagnosis and the MRSA infection would be at its most acute, was also assessed.

Results

MRSA

Of the 5,318 laboratory records of MRSA bacteraemia subsequently linked to a death in the two years of the study, MRSA infection at any body site was recorded as the underlying cause of death on 261 certificates (4.9 per cent), and was mentioned on the certificate though not as the underlying cause of death for 498 people (9.4 per cent). Overall, it was mentioned on 759 certificates (14.3 per cent). *Staphylococcus aureus* infection was mentioned on an additional 41 certificates (0.8 per cent) without mention of meticillin resistance. In total, 800 certificates (15.0 per cent) mentioned *Staphylococcus aureus*.

A total of 1,520 linked certificates (28.6 per cent) mentioned any type of septicaemia. Of these, 586 (38.6 per cent) mentioned MRSA, and a further 34 (2.2 per cent) mentioned *Staphylococcus aureus* without specifying meticillin resistance. Of all certificates mentioning septicaemia, 900 (59.2 per cent) did not specify the organism involved. Of all linked certificates, 3,798 (71.4 per cent) did not record any form of septicaemia.

Of all 759 linked certificates recording MRSA infection of any body site, 173 (22.8 per cent) did not have an ICD code for septicaemia. In addition, 7 of the 41 certificates (17.1 per cent) recording *Staphylococcus aureus* infection were not coded as a septicaemia. For patients dying in the first 15 days after a positive specimen, 23.5 per cent of certificates mentioned unspecified septicaemia, and 24.1 per cent mentioned MRSA. Overall, almost half (47.5 per cent) of certificates of patients dying within 15 days of a positive blood culture had either MRSA infection or unspecified septicaemia mentioned.

The proportion of all certificates with MRSA recorded was similar for males (13.9 per cent, 456 deaths) and females (14.9 per cent, 303 deaths). Sex was not related to whether MRSA was mentioned on the death certificate, either before ($p = 0.274$) or after ($p = 0.393$) controlling for other determinants (Table 1 and Table 2).

The percentage of death certificates mentioning MRSA increased with age from 10.2 per cent between ages 0 and 44 to 17.4 per cent at age 85 and over (Figure 1). Certificates mentioning septicaemia, but not specifying MRSA, increased from 15.5 per cent between ages 0 and 44 to 18.5 per cent in those aged 85 and over. Older age was associated with an increase in mention of MRSA both before and after adjustment for other factors. Taking a comparison group of

Table 1 Factors associated with recording of MRSA on death certificates – univariate logistic regression outcomes[1]

	Odds Ratio	P>z	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Lag in days between specimen and death (continuous variable)	0.990	0.000	0.988	0.992
Days 0–1	1.707	0.041	1.023	2.848
Days 2–15	10.845	0.000	7.442	15.803
Days 16–29	6.621	0.000	4.364	10.047
Days 30–43	4.288	0.000	2.641	6.960
Days 44–71	3.290	0.000	2.010	5.384
Number of conditions	1.472	0.000	1.405	1.541
Ages 0–44	1.085	0.765	0.636	1.851
Ages 45–54	1.086	0.732	0.676	1.744
Ages 65–74	1.207	0.280	0.858	1.696
Ages 75–84	1.887	0.000	1.384	2.572
Ages 85+	2.018	0.000	1.463	2.783
Sex (male/female)	1.092	0.274	0.933	1.277
Hospital	3.828	0.000	2.702	5.425
Calendar month	0.995	0.359	0.984	1.006
Postmortem	0.906	0.405	0.717	1.144
Doctor/ Coroner	1.097	0.449	0.864	1.393
Year of death	1.022	0.787	0.874	1.195
Before/after CMO guidance	0.970	0.750	0.802	1.172

1 Univariate regression outcomes: lag between specimen and deaths starts at 0 days; categories of days all compared to a reference group of 72+ days since specimen; number of conditions compared to a reference group of 1 condition; age groups compared to a reference group of 55–64 years; sex – reference group males; hospital – whether death occurred in hospital or elsewhere, reference group 'elsewhere'; calendar month – continuous variable starting Jan 2004; postmortem – reference group 'no postmortem'; doctor/coroner – reference group doctor; year of death – reference group 2004; before/after CMO guidance – reference group 'before'.

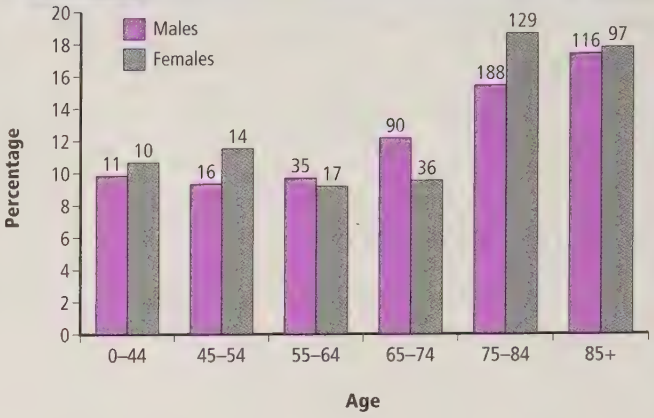
Table 2 Final regression model – Factors associated with recording of MRSA on death certificates[1]

	Odds Ratio	P>z	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Days 0–1	1.355	0.264	0.795	2.309
Days 2–15	8.751	0.000	5.862	13.065
Days 16–29	5.161	0.000	3.334	7.991
Days 30–43	3.766	0.000	2.280	6.220
Days 44–71	2.867	0.000	1.729	4.755
Number of conditions	1.429	0.000	1.360	1.501
Ages 0–44	1.069	0.814	0.611	1.872
Ages 45–54	1.112	0.680	0.672	1.838
Ages 65–74	1.062	0.744	0.741	1.522
Ages 75–84	1.673	0.002	1.204	2.324
Ages 85+	1.795	0.001	1.275	2.526
Sex	1.077	0.393	0.909	1.276
Hospital	1.423	0.069	0.973	2.082
Calendar	1.016	0.009	1.004	1.028

1 Logistic regression – outcome = whether MRSA was recorded on death certifcate, explanatory variables = (a) lag in days since positive MRSA specimen (with a reference group of 72+ days since the specimen), (b) number of conditions recorded on the death certificate (reference group of 1 condition), (c) age group (with a reference group of 55–64), (d) sex (reference group is males), (e) whether the death occurred in hospital, and (f) calendar month of death (continuous variable starting January 2004).

ages 55–64, those aged 75–84 were 1.7 times as likely to have MRSA mentioned on their death certificate (p=0.002, CI=1.2, 2.3) and those aged 85 and over were 1.8 times as likely (p=0.001, CI=1.3, 2.5). The likelihood for younger age groups than this was no different to that for ages 55–64 (Table 2).

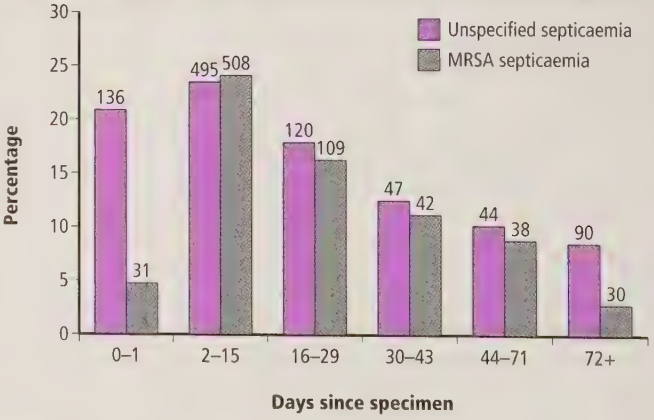
Figure 1 Percentage of death certificates mentioning MRSA after MRSA positive bacteraemia specimen, by age and sex



Note: The numbers shown on this graph represent the number of death certificates in this study mentioning MRSA, for each sex by age group.

MRSA was recorded on 4.8 per cent of certificates for deaths occurring on the day of, or the day after, the blood specimen was taken. This proportion increased in the period between 2 and 15 days since the specimen to a high of 24.1 per cent, and then declined steadily (Figure 2). Levels of reporting of MRSA on days zero and one were not significantly different from those for day 72 onwards (p=0.264). In all other periods, the likelihood of MRSA being recorded was significantly higher than for day 72 onwards (Table 2). The odds ratio was highest in the 2–15 days category (OR=8.75, CI=5.86, 13.07). The pattern of recording of unspecified septicaemia, compared with MRSA, only differed in that on days zero and one, 20.9 per cent of certificates mentioned unspecified septicaemia, compared with 4.8 per cent for MRSA.

Figure 2 Percentage of death certificates mentioning MRSA and unspecified septicaemia after MRSA positive bacteraemia specimen, by days since specimen

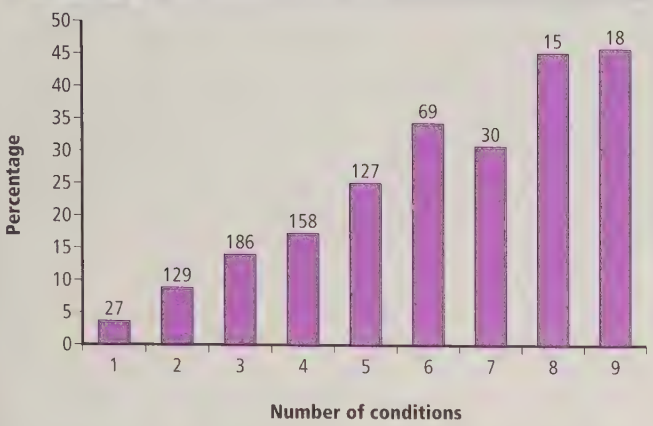


Note: The numbers shown on this graph represent the number of death certificates in each group of this study mentioning MRSA.

Only 3.6 per cent of death certificates recording only one condition mentioned MRSA infection. This rose to 34.5 per cent of certificates with six conditions recorded, and 46.2 per cent of certificates with nine conditions recorded (Figure 3). The likelihood of MRSA being mentioned rose with each additional condition recorded on the death certificate by 42.9 per cent (p=<0.0001, CI=36.0, 50.1) after adjustment for other factors (Table 2).

The place where a death occurred (hospital compared with other places combined) was strongly related to whether MRSA was recorded on the death certificate before controlling for other determinants (OR=3.83,

Figure 3 Percentage of death certificates mentioning MRSA after MRSA positive bacteraemia specimen, by the number of conditions recorded on the death certificate



Note: The numbers shown on this graph represent the number of death certificates in each group of this study mentioning MRSA.

p=<0.001) (Table 1), but less strongly after controlling, when it was no longer statistically significant (OR=1.42, p=0.069) (Table 2).

There was no difference between the likelihood of doctors (14.4 per cent) and coroners (13.3 per cent) mentioning MRSA on the death certificate (OR=1.097, p=0.449). In addition, whether or not a post mortem was carried out made no difference to the likelihood of MRSA being mentioned. MRSA was mentioned on 14.4 per cent of certificates where no post mortem had been carried out compared with 13.2 per cent of certificates where a post mortem was done (OR=0.91, p=0.405).

Changes over time in proportion of linked certificates with MRSA reported

Before controlling for the effects of time between specimen and death, there was no clear increase in the percentage of linked certificates mentioning MRSA over the period of the study (Figure 4). In January 2004, 14.2 per cent of certificates following a positive bacteraemia recorded MRSA. The highest recorded percentage was 19.1 per cent in June 2005; however, there is no consistent trend. In the month after *CMO Update 42* was published (August 2005), there was a slight increase in reporting to 18.6 per cent from 16.0 per cent in July. Immediately after this increase, there was a steep decline to 11.7 per cent in September 2005. Overall there was no persistent change in recording of MRSA on death certificates following the issue of new guidance to certifiers.

In logistic regression **without adjustment for time between specimen and death** (Table 3), there was no indication of a month to month increase in the recording of MRSA on certificates (OR=0.995, p=0.359). Similarly, there was no significant difference (OR=1.022, p=0.787) between the likelihood of MRSA being mentioned on a certificate in 2004 (14.5 per cent) and 2005 (14.8 per cent). Finally, there was no significant difference between reporting in the two periods before and after *CMO Update 42* (OR=0.865, p=0.114).

We subsequently re-examined the calendar month, year of death and before/after *CMO Update 42* variables, controlling for the effects of the time between specimen and death. This analysis showed a very small, but statistically significant, increase in the chance of MRSA being recorded month on month during the period of the study (OR=1.017, p=0.005) (Table 3). This increase of 1.7 per cent of the level of reporting at the start of the study period (14.2 per cent of linked certificates) per month, would result in 0.24 per cent more linked certificates mentioning MRSA in each succeeding month after January 2004. However, the proportion of certificates recording MRSA by month does not actually show a clear linear pattern upwards (Figure 4). There was no significant difference in the likelihood of MRSA being recorded in 2005 as a whole compared with 2004, even after controlling for the time between specimen and death (OR=1.165, p=0.065), nor was there a significant difference between the two periods before and after the *CMO Update 42* (OR=1.183, p=0.083).

Figure 4 Percentage of death certificates mentioning MRSA after MRSA positive bacteraemia specimen, by month of death and time between specimen and death

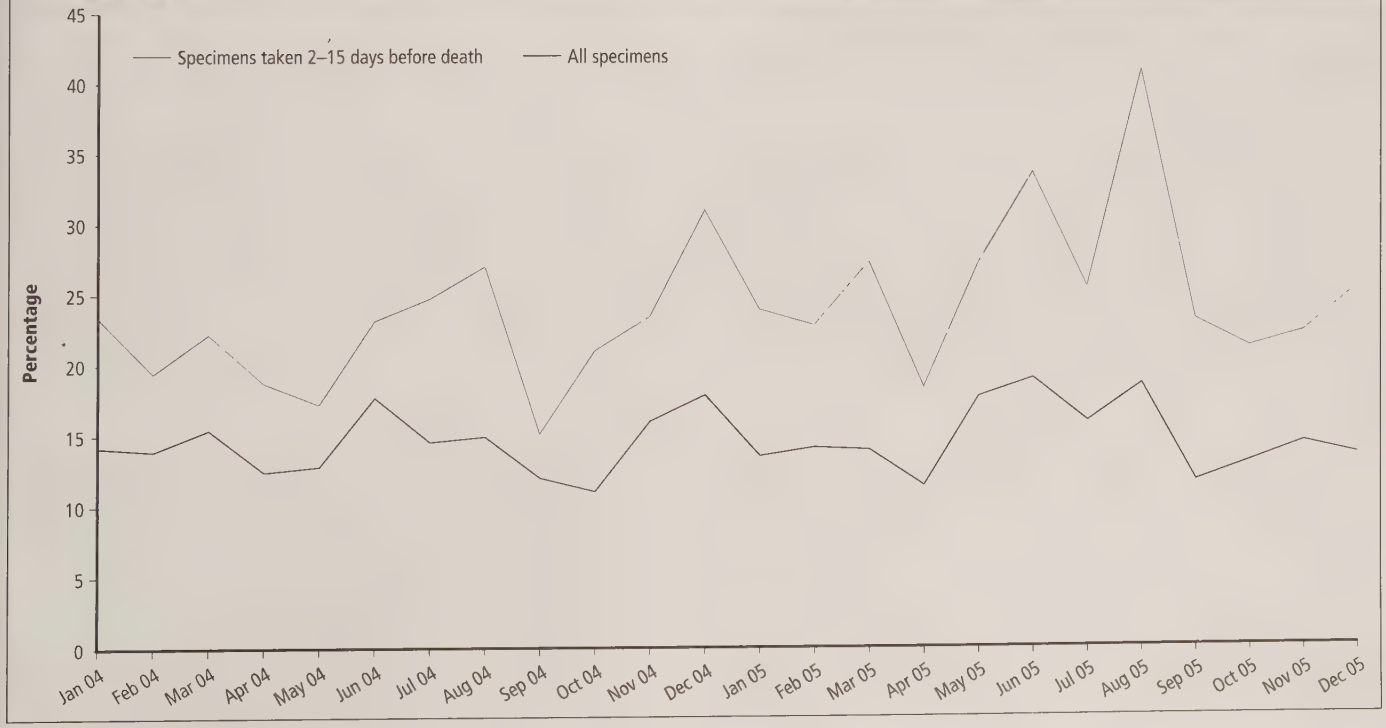


Table 3 Analysis of changes over time in certification of MRSA

	Odds Ratio	P>z	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Unadjusted logistic regression				
Calendar month (continuous)	0.995	0.359	0.984	1.006
Year of death[1]	1.022	0.787	0.874	1.195
Before/after CMO guidance	0.865	0.114	0.722	1.036
Logistic regression adjusted for lag between specimen and death				
Calendar month (continuous)	1.017	0.005	1.005	1.029
Year of death[1]	1.165	0.065	0.991	1.371
Before/after CMO guidance	1.183	0.083	0.978	1.432
Logistic regression limited to deaths occurring 2–15 days after bacteraemia specimen				
Calendar month (continuous)	1.016	0.028	1.002	1.031
Year of death[1]	1.209	0.064	0.989	1.478
Before/after CMO guidance	1.185	0.185	0.922	1.522

1 Data for 2004 and 2005 only.
Note: Calendar month starts in January 2004.

Limiting analysis to those deaths occurring between 2 and 15 days since the blood specimen showed similar results (Table 3). Logistic regression including only those deaths occurring between 2 and 15 days after a positive specimen shows a similar small yet statistically significant difference over time in the recording of MRSA when assessed by calendar month (OR=1.016, p=0.028), but no significant difference in reporting in 2005 as a whole compared with 2004 (OR=1.209, p=0.064) or before and after the *CMO Update 42* (OR=1.185 p=0.185).

Univariate analysis of deaths between 2 and 15 days after the specimen again shows no overall pattern of increase in reporting by calendar month, with a great deal of variation between months (Figure 4). There was again an increase in reporting in the month immediately after *CMO Update 42* was issued (August 2005). In July, MRSA was recorded on 25.6 per cent of certificates when death occurred between 2 and 15 days after a bacteraemia; in August this had increased to 41.1 per cent, only to fall as sharply the next month to 23.3 per cent in September.

Calendar month of death was included in the final model (Table 2), where it showed a very small but statistically significant upward drift in inclusion of MRSA on death certificates, after adjusting for other significant factors.

Streptococcus pneumoniae

Of the 3,141 people with a laboratory record of *S. pneumoniae* bacteraemia linked to a death, infection with *S. pneumoniae* was recorded as the underlying cause of death on 172 certificates (5.5 per cent), and mentioned – though not as the underlying cause – on a further 90 certificates (2.9 per cent); in all being mentioned on 262 certificates (8.3 per cent). A total of 1,453 death certificates (46.3 per cent) mentioned pneumonia but did not specify the organism involved and, similarly, 382 certificates (12.2 per cent) mentioned unspecified septicaemia. Certifiers were significantly less likely to mention *S. pneumoniae* (8.3 per cent) than MRSA (14.3 per cent) (p<0.002) after a positive bacteraemia specimen.

Comparison with number of deaths in ONS annual reports

ONS routine annual reporting identified a total of 2,605 death certificates with mention of MRSA infection of any body site in 2004 (1,069 deaths) and 2005 (1,536) in England. Only 28 per cent of these (729) could be linked to a positive bacteraemia reported in HPA voluntary surveillance data. This linkage study identified an additional ten deaths in these two years that had MRSA written on the certificate that had not been picked up by ONS standard search strategy using ICD codes then text on certificates.

Discussion

Main findings

In this dataset of over 5,000 MRSA bacteraemia laboratory reports linked to death registrations, more certifiers recorded unspecified septicaemia than the organism involved. Almost half of death certificates of patients who died in the first 15 days after their blood culture specimen had either MRSA infection or unspecified septicaemia mentioned. The proportion with mention of MRSA increased significantly with the number of conditions on the certificate and in the oldest age groups. Neither unspecified septicaemia nor MRSA septicaemia would be acceptable as the only cause on a certificate from a doctor without referral to the coroner (Box Six).

Box six

Death Certification and Registration in England and Wales and reporting deaths from septicaemia to the coroner

When someone dies, one of the doctors involved in their care is required under the *1953 Registration of births and deaths Act* to complete a medical certificate of cause of death (MCCD), and ensure that it is delivered to the registrar of births and deaths for the area in which the death occurred.

The cause section of the MCCD is in the format internationally agreed through the World Health Assembly, and published by the World Health Organisation in the International Statistical Classification of Diseases, Tenth Revision (ICD–10) which also contains definitions and instructions about how the certificate should be completed. The certifier is asked to start with the immediate cause of death on line a in part I, and then to go back through the sequence of events or conditions that led directly to death on b and c, until s/he gets to the underlying cause of death (UCD). The UCD is defined by WHO as 'a) the disease or condition that initiated the morbid train of events leading directly to death, or b) the external circumstances that caused the fatal injury'. If the certificate has been correctly completed, the UCD should be the single condition written on the lowest used line of the MCCD, and should have caused the conditions written on the lines above it.

The certifying doctor usually gives the completed MCCD to a member of the deceased's family who takes it to the register office. Registrars have a statutory duty to report certain categories of death to the coroner before they can be registered. These include deaths for which the cause appears to be unknown and deaths which might be due to unnatural causes, including any form of accident or violence, injury or poisoning. Registrars have no clinical training. They use their judgement, and instructions provided by the General Register Office to identify deaths that must be referred. An MCCD on which the certifier had only written 'septicaemia' as the underlying cause would be referred to the coroner, because septicaemia could be the result of accidental or violent injury. An MCCD on which the certifier specified that the septicaemia was the result of a disease would not need to be referred, for example septicaemia due to a diverticular abcess due to diverticulitis, or septicaemia due to pneumonia.

There are a small number of organisms that are generally accepted as indicative of a natural illness. For example a death certified as due to meningococcal septicaemia on its own need not be reported to the coroner. However, merely specifying that the septicaemia involved MRSA would not make the certificate acceptable without referral, since this could still be the result of an injury. The certifier would still need to specify a disease that started the sequence leading to the septicaemia, or the death would have to be reported to the coroner.

Certifiers were significantly more likely to mention MRSA than *S. pneumoniae* in deaths following positive blood culture with one of these organisms.

When the proportion of linked certificates on which MRSA was mentioned in the two years overall was compared, the difference was not statistically significant, but there was a small statistically significant increase for calendar month. Applying the monthly odds ratio (1.017, Table 3) to the baseline MRSA reporting level in January 2004 (14.2 per cent of linked certificates) would indicate that, for each successive month during the study period, an additional 0.24 per cent of all linked certificates had MRSA mentioned. Assuming that this applied across a whole year, it would result in an annual increase of about 2.9 per cent of all linked certificates. This level of increased reporting of MRSA over time clearly cannot account for the 43.7 per cent increase in the overall number of death certificates in England with mention of MRSA, from 1,069 in 2004 to 1,536 in 2005.[4] The new guidance issued to doctors does not appear to have caused a sustained large increase in the tendency of doctors to mention MRSA.

We did not find any difference in reporting of MRSA in relation to the patient's sex, place of death, certifier of the death, or whether or not a post mortem was carried out.

Comparison with other studies

Other studies have shown that the risk of invasive MRSA infection,[11] and population based mortality rates,[3,12] rise with age. Mortality from hospital acquired infections also rises with severity of pre-existing disease.[13] This study shows that the likelihood that MRSA will be mentioned on the death certificate when it has been grown from a blood culture also rises with age and with the total number of conditions the certifier thought contributed to death. Some doctors list more steps in the direct sequence leading to death than others, and/or more contributory conditions, given the same scenario, but their reasons for doing this are not known.[14,15]

Studies linking hospital discharge records to death certificates have shown that some conditions are much more likely to be mentioned on the death certificate than others. Life threatening acute events such as stroke and myocardial infarction, as well as cancers of breast and lung, will nearly always be mentioned on the certificate if a patient dies within four weeks of admission for one of these, and will usually be the underlying cause. Acute conditions are more likely to be mentioned if death occurred soon after diagnosis or admission, whereas cancers are likely to be recorded whatever the interval.[16,17] Our findings on the pattern of MRSA recording by time between specimen and death fit with the pattern seen for acute conditions.

Strengths

This study included all patients in England over a two year period with a first episode of MRSA bacteraemia reported to HPA that could be linked to a death registered in the same period or the subsequent three months. It was able to compare reporting of MRSA with *S. pneumoniae*, whose acquisition is less associated with health care, following positive blood cultures reported to HPA through a similar voluntary laboratory based system.

Limitations

Very little clinical information is available from the voluntary laboratory reports to HPA or from death certificates. It is not known where or how the infections were acquired, so it cannot be concluded that they were definitely the result of health care interventions or were hospital acquired. The linked dataset was based on voluntary laboratory reports of bacteraemias to HPA. This voluntary scheme is known to be less complete than the mandatory reporting of MRSA bacteraemia, but the latter did not have patient identifiers until near the end of the study period. Other research has shown that blood cultures are only a small proportion of all clinically significant MRSA infections confirmed by microbiology laboratories in hospitals in Oxford.[18] This may explain why only 28 per cent of the deaths could be linked back to a laboratory report.

There was no information on patients' main diagnoses or co-morbidity prior to their septicaemia or death, so reporting of MRSA could not be compared with other diseases, injuries or complications of treatment that the certifiers knew to be present. There was no way of measuring their prior risk of death, nor how much MRSA contributed to it, so it is not known how many deaths should have had MRSA recorded but did not.

Meaning of this study

This study shows that certifiers are most likely to report MRSA or septicaemia on death certificates when patients die during, or very soon after, acute bacteraemic illness, when it is most likely to contribute substantially to risk of death. They report septicaemia, but not MRSA, in the first two days, before laboratory results are available.

Our findings do not support the idea that doctors deliberately omit MRSA from death certificates because of its association with health care. On the contrary, they are more likely to mention MRSA than *S. pneumoniae*, which is almost always community acquired. Doctors are no less likely to mention MRSA than coroners when completing the death certificate. The study supports our hypothesis that certifiers more often specify the clinical diagnosis or body system infected, for example septicaemia or pneumonia, than the organism involved. This may be because medical certificates of cause of death (MCCDs) are completed by clinicians caring for patients, rather than microbiologists.

This study cannot tell whether MRSA is actually more likely to contribute to death when patients already have a large number of health problems, or whether it is simply more likely to be mentioned by certifiers who tend to include a large number of conditions.

The MCCD and associated instructions and guidance are designed to identify the underlying cause of death, which is defined by the World Health Organisation (WHO) as '(a) the disease or injury which initiated the morbid train of events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury'.[8] By definition, infections acquired as a result of treatment for another serious disease or injury will not normally be the underlying cause, since they cannot be the start of this sequence. The instructions put much less emphasis on recording conditions other than the underlying cause, and the certifier is only supposed to record those which they believe contributed to the death. MRSA may be only one of many complications of a patient's pre-existing illnesses and the certifier may judge that it made little difference to the patient's risk of dying, given their prior health status, co-morbidity and/or other complications of their underlying condition.

There was a very small, but statistically significant, upward drift in the reporting of MRSA on death certificates following positive bacteraemia specimens during the period of the study. However, the level of upward drift identified here could not explain the level of increase (43.7 per cent) in all deaths involving MRSA as identified in ONS annual reporting between 2004 and 2005.

The analysis of changes in reporting following the new DCAG guidance and *CMO Update 42* showed that there was no sustained statistically significant difference in reporting before and after the guidance was issued. Any change in reporting immediately after the guidance was issued could just as likely be random variation as a true impact of the guidance.

Of all death certificates with MRSA mentioned in 2004 and 2005, only 28 per cent could be linked to a prior bacteraemia reported to the HPA. The majority of deaths to which certifiers believe MRSA infection made a significant contribution would not be identified from existing national

surveillance schemes based on bacteraemia alone. Other researchers have shown that bacteraemia specimens only make up a relatively small proportion of all clinically significant MRSA positive specimens identified in hospital laboratories.[18] There was no information available about laboratory reports of specimens other than blood that might have identified MRSA infection of other body sites in these cases.

This study followed an opportunistic linkage of two existing data systems. Even in combination, these do not actually measure the contribution of MRSA infection to mortality. There is little to be gained from repeatedly linking bacteraemia reports to deaths, unless reports of other clinically significant MRSA infections are also linked and data on principle diagnoses and co-morbidities is collected. Only then would it be possible to estimate the contribution of MRSA infection to death, independent of the certifier's stated clinical opinion.

The laboratory reports available for this study did not include information about where or how the infections were acquired, and this information is very rarely recorded on death certificates. Unless this information is collected systematically, it will not be possible to measure the mortality burden from infections acquired through health care.

Key findings

- Certifiers are most likely to record MRSA on the death certificate if they believe that a large number of conditions contributed to the patient's death, if the patient was aged 75 or over, and if the patient died between 2 and 15 days following a positive blood culture
- More certificates mentioned unspecified septicaemia, the clinical diagnosis, than MRSA, the bacterium involved
- Almost half of certificates of patients dying within 15 days of a positive blood culture had either MRSA or unspecified septicaemia mentioned
- Certifiers were significantly less likely to mention *Streptococcus pneumoniae*, a largely community acquired infection, than they were to mention MRSA on the death certificates of patients with a laboratory confirmed bacteraemia
- There is evidence of a very small upward drift in recording of MRSA infection by certifiers following a positive blood culture

Acknowledgements

The authors would like to thank Edmond Ng (Honorary Lecturer, London School of Hygiene and Tropical Medicine) for statistical advice; Richard Pebody, Theresa Lamagni, and other colleagues at the Health Protection Agency for access to, and information and advice on, the laboratory data. Nicola Potz and David Powell (Health Protection Agency) collated and linked the data and advised on the content of the laboratory data.

This study was completed using data from the MRSA linkage project, funded by the Department of Health; the views expressed in the publication are those of the authors and not those of the Department of Health.

References

1. Crowcroft N, Catchpole M (2002) 'Mortality from methicillin resistant *Staphylococcus aureus* in England and Wales: analysis of death certificates', *British Medical Journal* **325**, 1390–91.
2. Griffiths C, Lamagni T L, Crowcroft N S *et al* (2004) 'Trends in MRSA in England and Wales: analysis of morbidity and mortality data for 1993–2002', *Health Statistics Quarterly* **21,** 15–22. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
3. Office for National Statistics (2007) Report: 'Deaths involving MRSA: England and Wales, 2001–05', *Health Statistics Quarterly* **33**, 76–81. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
4. Office for National Statistics (2008) Report: 'Deaths involving MRSA: England and Wales, 1993–2006', *Health Statistics Quarterly* **37**, 57–62. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
5. Rooney C (2005) 'Instructions for doctors certifying causè of death', *Association of Clinical Pathologists News*, Summer 2005, 25–29.
6. Office for National Statistics (2005) *Guidance for doctors certifying cause of death in England and Wales, from the Office for National Statistics Death Certification Advisory Group,* published on the General Register Office website, June 2005, accessed 30 January 2009, available at: www.gro.gov.uk/medcert
7. Department of Health (2005) *CMO Update,* Issue 42, Summer 2005, Department of Health: London.
8. World Health Organisation (1993) *International Statistical Classification of Diseases and related health problems, tenth revision; Vol. 2,* World Health Organisation: Geneva.
9. Office for National Statistics (1997) *Notes for doctors completing the medical certificate of cause of death,* (See books of certificates), Office for National Statistics: London.
10. Potz N, Powell D, Pebody R *et al* (2006) *Development of a method to link infection and mortality data,* poster presentation, Health Protection Agency Annual Conference, Sept 2006, Warwick, accessed 30 January 2009, available at: www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1200660056163
11. Health Protection Agency (2007) *Surveillance of Healthcare Associated Infections Report 2007*, accessed 30 January 2009, available at: www.hpa.org.uk/publications/PublicationDisplay.asp?PublicationID=108
12. Allard C, Carignan A, Bergevin M *et al* (2008) 'Secular changes in incidence and mortality associated with *Staphylococcus aureus* bacteraemia in Quebec, Canada, 1991–2005', *Clinical Microbiology and Infection,* May 2008, **14(5)**, 421–28.
13. Salemi C, Morgan J, Padilla S and Morrissey R (1995) 'Association between severity of illness and mortality from nosocomial infection', *American Journal of Infection Control* **23**, 188–93.
14. Devis T and Rooney C (1999) 'Death certification and the epidemiologist', *Health Statistics Quarterly* **1**, 21–33. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
15. Balkau B, Jougla E, Papoz L and the Eurodiab subarea C study group (1993) 'European study of the certification and coding of causes of death of six clinical case histories of diabetic patients', *International Journal of Epidemiology* **22**, 116–26.
16. Goldacre M J, Roberts S E and Griffith M (2004) 'Place, time and certified cause of death in people who die after hospital admission for myocardial infarction or stroke', *European Journal of Public Health* **14(4)**, 338–42.
17 Johansson L A and Westerling R (2002) 'Comparing Swedish hospital discharge records with death certificates: Can the differences be explained?' *Journal of Epidemiology and Community Health* **56**, 301–08.
18. Walker S, Peto T E A, O'Connor L *et al* (2008) 'Are there better methods of monitoring MRSA control than bacteraemia surveillance? An observational database study', *Public Library of Science Online,* **3(6)**: e2378. doi:10.1371/journal.pone.0002378, accessed 30 January 2009, available at: www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0002378

Estimating conception statistics using gestational age information from NHS Numbers for Babies data

Yuan Huang Chew and Niruja Dattani
Office for National Statistics

Conception statistics routinely published for England and Wales include pregnancies that result in one or more live- or stillbirths (a maternity) or an abortion. All live births are assumed to be 38 weeks gestation as information on gestation is not collected at birth registration. For the first time, gestational age information from the National Health Service (NHS) Numbers for Babies (NN4B) data has been used to re-estimate conception statistics for 2005. This shows that 72 per cent of conceptions leading to a maternity in fact have a gestation period that differs from 38 weeks and most of these fall at either 37 or 39 weeks. The age-specific conception rates using this revised method are not significantly different to those produced using the current method.

Introduction

The Office for National Statistics (ONS) (and its predecessors) has produced and published conception statistics for England and Wales since 1969.[1,2] These data are used to monitor the outcome of pregnancies and also for setting and informing government policies, in particular England's Teenage Pregnancy Strategy.[3]

ONS estimates conceptions using information from registration of births and notifications of legal abortions for women who are usually resident in England and Wales.

Miscarriages and illegal abortions are, however, not included in conception statistics as data on them are not collected centrally or recorded under any formal registration systems. Therefore, estimates of conceptions from birth registrations and abortion notifications will always under-estimate the true number of conceptions.

In England and Wales, gestation period (average duration of pregnancy from conception) is not recorded at the registration of live births, however, gestation is recorded on the medical certificate of stillbirths and notifications of abortions. Therefore, conceptions are estimated using recorded gestation for abortions and stillbirths, while for live births, the gestation period is assumed to be 38 weeks for all women.[4,5] Gestational age is, however, known to vary by multiplicity, mother's age and ethnicity.[6,7,8,9]

A new system introduced in 2002 for allocating NHS numbers at birth (NN4B) provided the opportunity to obtain gestational age information for live births. For all NHS numbers issued from 1 January 2005, ONS has received daily downloads of a subset of the variables received by NN4B, including gestational age. This has made it possible to improve

Box one

Conception statistics include pregnancies that result in:

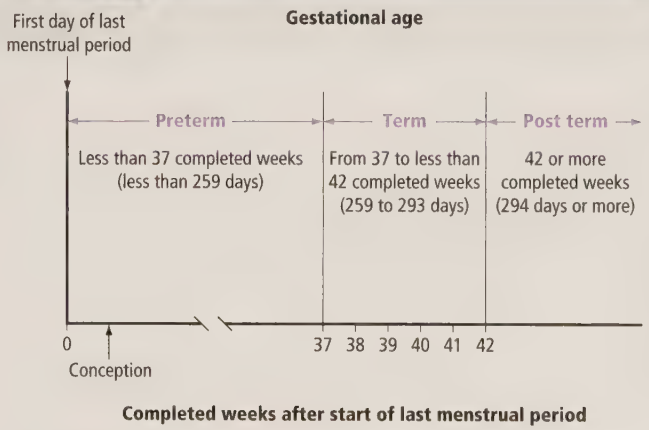
- one or more live- or stillbirths (a maternity), or
- a legal abortion under the *Abortion Act 1967* (an abortion).

the quality of conception statistics by accurately calculating date of conception for live births by linking NN4B and birth registration data in England and Wales. Gestational age is recorded in the NN4B data in completed weeks of gestation from mother's last menstrual period to baby's date of birth. In relation to conception statistics, the current method used by ONS assumes all live births are born at full term – mothers with preterm births may potentially have later conception dates, while mothers with post term births have earlier conception dates. These differences in the date of conception will affect mother's age at conception when the former is close to the mother's birthday.

Figure 1 shows the measurement of gestational age using preterm, term, and post term categories as defined by the World Health Organisation.[10]

In this article conception statistics for 2005 are estimated using linked NN4B-birth registration files for 2005 and 2006. They are then compared to conception statistics for 2005 derived using the current method.

Figure 1 World Health Organisation definition of gestational age


First day of last menstrual period
Gestational age
Preterm
Term
Post term
Less than 37 completed weeks (less than 259 days)
From 37 to less than 42 completed weeks (259 to 293 days)
42 or more completed weeks (294 days or more)
0
Conception
37 38 39 40 41 42
Completed weeks after start of last menstrual period

Source: Birth Counts

Methods

The analysis examines conception statistics derived using two methods; firstly, following data assumptions currently in use by ONS (current method) and secondly, using gestational age from NN4B data for all live births (revised method).

Current

Date of conception
Date of conception is estimated by subtracting the gestation period from the baby's date of birth or date of termination.

Live births
Conception is assumed to occur 14 days (2 weeks) after the start of the last menstrual period and the time between the last menstrual period and birth is assumed as 40 weeks (referred to as gestational age). Therefore the length of pregnancy from conception to birth is assumed to be 38 weeks (40 weeks minus 2 weeks) for all live births.

Stillbirths
Gestational age is recorded at the registration of a stillbirth. The date of conception is estimated as date of birth minus stated gestational age plus two weeks to allow for time to conceive. On the few records where gestational age is not recorded or available at registration, the length of pregnancy from conception to stillbirth is assumed to be 33 weeks.

Abortions
To produce conception statistics, ONS receives information on abortions from the Department of Health. Gestational age is collected on all notifications of abortions and the vast majority of abortions are performed at under 13 weeks gestation. The date of conception for abortions is estimated as date of termination less the stated gestational age plus 2 weeks to allow for conception. There are however a small proportion of abortion notifications where gestational age is missing and for these records gestation is imputed between 7–10 weeks.[11]

Age at conception
The mother's age at conception is calculated by subtracting date of conception from mother's date of birth. Where mother's date of birth is not available, a mother's age at birth is then imputed and in these cases the mother's age at conception was calculated from an imputed mother's age at maternity.[4] Mother's date of birth was not present for less than 1.5 per cent of maternities for 2005 and 2006.

Revised

In the revised method NN4B data linked to birth registration data for 2005 and 2006 are used. Details on the linkage can be found elsewhere.[12] In the linked data, the only data item that is used from the NN4B data is gestational age for live births; all other information required to produce conception statistics is taken from the birth registration record.

Live births
Gestational age on NN4B is recorded from date of mother's last menstrual period to date of birth of baby. Therefore, to allow time for conception, two weeks are subtracted from recorded gestation. Hence, date of conception is estimated by subtracting this gestation period from baby's date of birth.

For live births where gestational age was not stated on the NN4B record or where the birth registration record could not be linked to a NN4B record, the gestation period is assumed to be 38 weeks.

Stillbirths
Information on gestational age for stillbirths is taken from the stillbirth registration record as this was considered to be more complete and accurate. Date of conception is then calculated as with the current method. Therefore, no changes were made to the current method.

Abortions
No changes were made to the current method.

Results

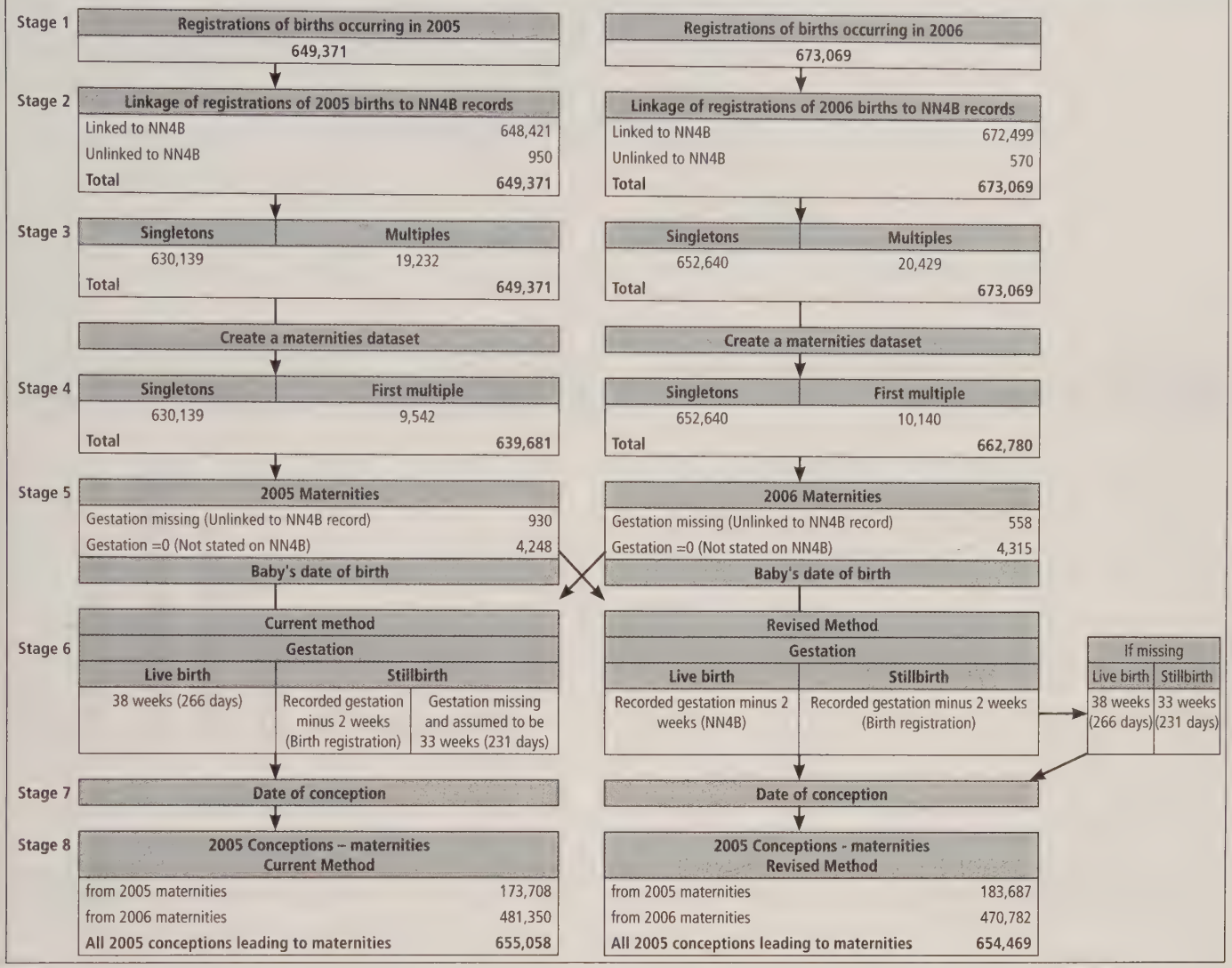
The results for each stage of the process for producing conceptions leading to maternities only (that is not including abortions) using current and revised methods are shown in Figure 2.

Stage 1. Records were identified for 649,371 births occurring in 2005 and 673,069 births occurring in 2006 that were registered in England and Wales.

Stage 2. Birth registration records were then linked to NN4B data. Linkage of birth registrations that occurred in 2006 to NN4B data was carried out using the method used previously for 2005 data.[12] For births occurring in 2005, 648,421 birth registration records were linked to NN4B records giving a linkage rate of 99.8 per cent and for births occurring in 2006, 672,499 birth registration records were linked to NN4B records giving a linkage rate of 99.9 per cent.

Figure 2 Process for producing conceptions leading to maternities data for 2005 using birth registrations linked to NN4B data, 2005–06

England and Wales



Stage 3. Records for singleton and multiple births were separated in order to produce a maternities dataset.

Stage 4. A maternities file including all singleton births and one record from each set of multiple births was produced for 2005 and 2006.

Stage 5. It was found that recorded gestational age from NN4B was missing on 5,178 maternities for 2005 and 4,873 maternities for 2006 (less than 1 per cent of all maternities for 2005 and 2006); these were either not stated or not available as the NN4B record did not link to a birth registration record.

Stage 6. Table 1 shows the allocation of gestational age to each maternity. Using the current method, 636,420 and 659,388 live births for 2005 and 2006 respectively were assumed to be 38 weeks gestation. At birth registration recorded gestational age was available for 3,206 stillbirths in 2005 and 3,375 stillbirths in 2006, and missing for 55 and 17 stillbirths in 2005 and 2006 respectively.

The revised method uses recorded gestation from NN4B for live births; this was available for 99 per cent of maternities in 2005 and 2006. Gestational age for stillbirths was taken from birth registration data. For live births where gestational age was missing the gestation period was assumed to be 38 weeks (this involved 5,106 live births for 2005 and 4,818 live births for 2006).

Stage 7. Date of conception was estimated by subtracting the gestation period from the baby's date of birth. Table 2 shows the variation in the number of maternities by year of conception using current and revised methods.

Stage 8. In this final stage conceptions occurring in 2005 were selected where dates of conception fell between 1 January 2005 and 31 December 2005. Using the current method there were 655,058 conceptions leading to maternities in 2005 and the revised method gave 654,469 conceptions leading to maternities for 2005.

Data issues

Previous analysis of linked NN4B-birth registration data for 2005 showed there were inconsistencies in the recording of gestational age and birthweight information for babies born under 22 weeks.[6] There were 88 live births for 2005 and 82 live births for 2006 where gestational age was inconsistent with birthweight and for these records the gestation period was assumed to be 38 weeks.

In contrast to preterm births, there are babies which were born post term (over 42 weeks). Babies with gestational age recorded as 44 weeks and over, (975 maternities in 2005 and 929 maternities in 2006) were assumed to be 38 weeks gestation as pregnancies are unlikely to go beyond 43 weeks. Gestational ages greater than this are most likely to be due to data recording errors.

Table 1 Number of maternities by gestation period using current and revised methods, 2005–06

England and Wales

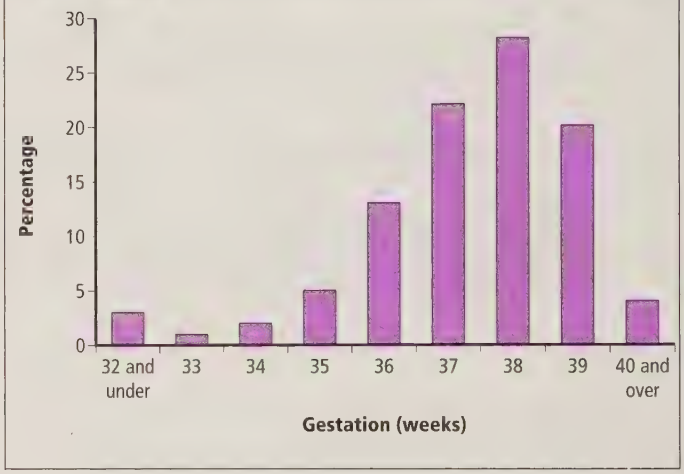
Year of birth	Total	Current method			Revised method			
		Gestational age			Gestational age		Gestational age if missing	
		Live birth	Stillbirth		Live birth	Stillbirth	Live birth	Stillbirth
		38 weeks	Recorded gestation minus 2 weeks	Gestation missing and assumed to be 33 weeks	Recorded gestation minus 2 weeks	Recorded gestation minus 2 weeks	38 weeks	33 weeks
			Birth registration		NN4B	Birth registration		
2005	639,681	636,420	3,206	55	631,314	3,206	5,106	55
2006	662,780	659,388	3,375	17	654,570	3,375	4,818	17

Table 2 Number of maternities by year of conception using current and revised methods, 2005–06

England and Wales

Year of birth	Total	Current method			Revised method		
		Conception year			Conception year		
		2004	2005	2006	2004	2005	2006
Numbers							
2005	639,681	465,973	173,708	–	455,994	183,687	–
2006	662,780	–	481,350	181,430	–	470,782	191,998
Total			655,058			654,469	
Percentages							
2005	100	73	27	–	71	29	–
2006	100	–	73	27	–	71	29

Figure 3 Conceptions leading to maternities by gestation using the revised method, 2005



Impact of revised method on conceptions for 2005

Table 2 shows how maternities from 2005 and 2006 contribute to the number of conceptions for 2005. Using the current method, 27 per cent of maternities occurring in 2005 were conceived in 2005. This increased to 29 per cent using the revised method. Of the maternities occurring in 2006, 71 per cent were conceived in 2005 using the revised method compared with 73 per cent using the current method. The revised method gives 10,568 more maternities which were conceived in 2006.

The distribution of 2005 conceptions leading to maternities by gestation using the revised method is shown in Figure 3. Of the 654,469 conceptions leading to maternities for 2005 produced using the revised method, gestation (measured in complete weeks) remained the same (38 weeks) for 28 per cent of conceptions, while gestation for 24 per cent of conceptions was longer (over 38 weeks) and for 48 per cent of the conceptions, gestation was shorter (under 38 weeks). Overall, 42 per cent of conceptions have a gestation period that falls either at 37 or 39 weeks.

For the majority of all conceptions leading to a maternity, woman's age at conception remains the same using the revised method as the current method, as shown in Table 3. Of the remainder, 2 per cent of women are older (13,378) and 0.5 per cent of women are younger (3,554). Women who are older at conception using the revised method have had a pregnancy which is shorter than 38 weeks. Conversely, women who are younger at conception using the revised method have had a pregnancy which is longer than 38 weeks. Of the women who are older, 1,022 (8 per cent) are women aged under 20 while 2,745 (21 per cent) are women aged 35 and over. Of the women who are younger, 385 (11 per cent) are women aged under 20, while 459 (13 per cent) are women aged 35 and over.

The numbers and rates of all conceptions for women in England and Wales in 2005 are shown in Table 4. Using the current method there were 842,454 estimated conceptions for all ages for 2005 and using the revised method there were 841,423 conceptions; a difference of 0.12 per cent. The conception rate for all ages remains the same at 76.0 conceptions per 1,000 women using the current or revised method.

There were 102,336 conceptions to mothers aged under 20 using the current method compared with 101,959 conceptions using the revised method, giving rates of 60.1 per 1,000 women aged 15–19 and 59.9 per 1,000 respectively. There are also fewer conceptions for the under 18 age group with 42,344 conceptions produced using the current method compared with 42,134 conceptions using the revised method with rates of 41.5 per 1,000 and 41.2 per 1,000 aged 15–17 respectively. Conception rates for women aged under 20 and 20–24 are slightly lower using the revised method and the rates are identical for women aged 25–29.

However, conception rates for women aged 35–39 and 40 and over are slightly higher using the revised method compared with the current method.

The differences in conception rates between the methods for all age groups, however, are not statistically significant. Conception rates calculated using the revised method fall within the confidence limits of the rates produced using the current method.

Table 3 Age of woman at conception leading to a maternity using the revised method compared with the current method, 2005

England and Wales

Age at conception using revised method	Woman's age comparing revised with current method			
	Younger	Same	Older	Total
Under 18	159	22,003	356	22,518
18	103	17,048	272	17,423
19	123	20,297	394	20,814
20	126	22,438	441	23,005
21	155	23,734	462	24,351
22	127	25,663	506	26,296
23	165	27,205	484	27,854
24	184	29,935	594	30,713
25	188	32,298	656	33,142
26	196	32,706	680	33,582
27	171	32,897	634	33,702
28	208	34,606	679	35,493
29	195	36,356	760	37,311
30	244	37,878	731	38,853
31	198	37,160	771	38,129
32	200	36,239	747	37,186
33	186	34,056	739	34,981
34	167	31,458	727	32,352
35	129	26,423	657	27,209
36	102	21,872	513	22,487
37	84	17,028	440	17,552
38	59	13,044	345	13,448
39	46	9,700	296	10,042
40 and over	39	15,493	494	16,026
Totai	3,554	637,537	13,378	654,469
Percentages	*0.5*	*97.4*	*2.0*	*100.0*

Discussion

The method for producing conception statistics was previously examined in 1999[1] which took into account mother's day of birth and baby's day of conception. However, this is the first time gestational age for live births has been used to produce conception statistics for England and Wales, while it has been possible to do this previously for Scotland.[13]

Using recorded gestational age for live births has shown that nearly three-quarters of conceptions leading to a maternity (72 per cent) have a gestation period that is different to the current method of assuming a 38 week gestation period. However, the majority of these are born either at 37 or 39 weeks gestation. Differences in gestation are more likely to be due to preterm birth (a result of a shorter pregnancy) and this has had an effect on the date of conception, when measured by year of conception, as slightly more maternities are then reported to have been conceived in a later calendar year. The revised method therefore produces fewer conceptions for 2005 compared with the current method. However, as conception statistics are reported by the woman's age at conception, for the vast majority of women, age at conception remains the same using the current or revised method, and where there is a difference, the woman is slightly older. The number of conceptions estimated using the revised method has had a slight impact on conception rates for specific age groups, especially for women aged under 20 and women aged 35 and over. However, overall conception rates at national level by woman's age are not significantly different between the current and revised methods.

The revised method provides a better estimation of date of conception for live births, and in particular for multiple births, and woman's age at conception. However, conceptions leading to a multiple birth account for a small proportion of overall conceptions.

This analysis has used only gestational age from NN4B and all other information from the birth registration record. There are a very small

Figure 4 Differences in conception rates by woman's age – comparing the revised method with the current method, 2005

England and Wales

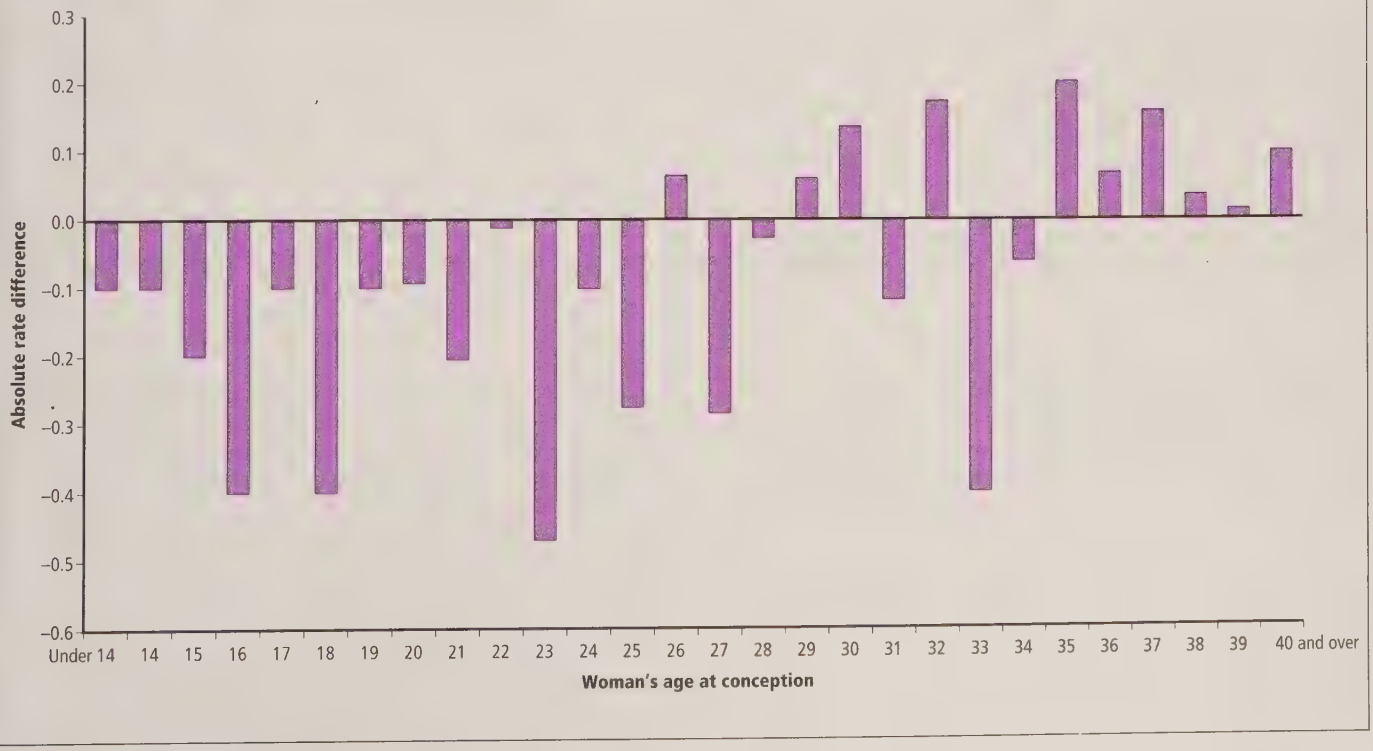


Table 4 Conceptions (numbers and rates[1]) by age of woman at conception, 2005

England and Wales

Age	All conceptions base numbers		Conception rates per 1,000 women					
	Current method	Revised method	Current method	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Revised method	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Under 14	328	317	1.0	0.9	1.1	0.9	0.8	1.0
14	1,829	1,815	5.4	5.2	5.6	5.3	5.1	5.5
15	5,773	5,730	17.1	16.7	17.5	16.9	16.5	17.3
Under 16	7,930	7,862	7.8	7.6	8.0	7.7	7.5	7.9
16	13,357	13,237	39.5	38.8	40.2	39.1	38.4	39.8
17	21,057	21,035	61.1	60.3	61.9	61.0	60.2	61.8
Under 18	42,344	42,134	41.5	41.1	41.9	41.2	40.8	41.6
18	28,045	27,916	82.5	81.5	83.5	82.1	81.1	83.1
19	31,947	31,909	93.5	92.5	94.5	93.4	92.4	94.4
Under 20	102,336	101,959	60.1	59.7	60.5	59.9	59.5	60.3
20	34,310	34,282	99.5	98.4	100.5	99.4	98.3	100.4
21	35,339	35,255	105.2	104.1	106.3	105.0	103.9	106.1
22	37,019	36,990	111.2	110.1	112.3	111.2	110.0	112.3
23	38,240	38,061	113.1	111.9	114.2	112.6	111.5	113.7
24	40,687	40,625	114.8	113.7	115.9	114.7	113.6	115.8
20-24	185,595	185,213	108.8	108.3	109.3	108.6	108.1	109.1
25	42,612	42,505	120.2	119.0	121.3	119.9	118.8	121.0
26	41,959	41,969	122.8	121.6	124.0	122.8	121.7	124.0
27	41,016	40,904	125.7	124.5	126.9	125.4	124.2	126.6
28	42,096	42,070	129.5	128.3	130.8	129.5	128.3	130.7
29	43,749	43,750	131.6	130.4	132.8	131.7	130.4	132.9
25-29	211,432	211,198	125.8	125.3	126.3	125.8	125.3	126.3
30	44,915	44,934	130.6	129.4	131.8	130.7	129.5	131.9
31	43,850	43,791	124.2	123.0	125.4	124.1	122.9	125.2
32	42,743	42,781	114.6	113.5	115.7	114.8	113.7	115.8
33	40,409	40,224	102.5	101.5	103.5	102.1	101.1	103.1
34	37,412	37,361	92.4	91.4	93.3	92.3	91.4	93.2
30-34	209,329	209,091	112.0	111.5	112.5	111.9	111.4	112.4
35	31,834	31,884	79.7	78.8	80.5	79.9	79.0	80.7
36	26,865	26,866	65.2	64.5	66.0	65.3	64.5	66.1
37	21,483	21,518	52.0	51.3	52.7	52.1	51.4	52.8
38	16,869	16,852	39.9	39.3	40.5	40.0	39.4	40.6
39	13,121	13,086	30.9	30.4	31.4	30.9	30.4	31.4
35-39	110,172	110,206	53.2	52.9	53.5	53.3	53.0	53.6
40 and over	23,590	23,756	11.5	11.4	11.6	11.6	11.5	11.7
All ages	842,454	841,423	76.0	75.8	76.2	76.0	75.8	76.2

1 Rates for women of all ages, under 14, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15–44, 13, 13–15, 15–17, 15–19 and 40–44 respectively.

proportion of records on the birth registration file where mother's date of birth is missing (7,675 maternities for 2005 and 9,883 maternities for 2006). A further stage of this analysis would be to use mother's date of birth where available from NN4B data, to provide a more accurate estimation of mother's age at conception than an imputed value.

Another aspect to explore further is how age-specific conception rates at local authority or ward level differ using current and revised methods. Local variations in the age-specific fertility rates as well as deprivation may have greater impact on age-specific conception rates.

The revised method provides only 2005 conceptions data and adopting this approach means it would not be possible to produce backdated data for trend analysis as gestational age data are not available prior to 2005. However, the small observed differences between estimates produced by the current and revised methods demonstrate that conception statistics derived from the current method can continue to be used for trend analysis. Therefore to enable monitoring of England's Teenage Pregnancy Strategy target, which covers the period 1998–2010, on a consistent basis, ONS will continue to produce routine conception statistics using the current method until data for 2010 are released.

In the meantime, ONS plans to derive and analyse 2006 and 2007 conception statistics at national level using the revised method and also analyse subnational data for 2005–07.

Key findings

- Using recorded gestational age for live births from NN4B data has shown that 28 per cent of conceptions leading to maternity for 2005 occurred at 38 weeks gestation (same as the current method), while 42 per cent of conceptions occurred either at 37 or 39 weeks gestation
- For the majority of all conceptions leading to a maternity, woman's age at conception remains the same using the revised method as the current method
- Age-specific conception rates produced using the revised method are not significantly different to those produced using the current method. Hence conception statistics derived from the current method can continue to be used for trend analysis

References

1. Office for National Statistics (1999) *Birth Statistics 1998,* Series FM1 no. **27**, pp xxix–xxxi, The Stationery Office: London.
2. Office of Population Censuses and Surveys (1987) *Birth Statistics, Historical series of statistics from registrations of births in England and Wales 1837–1983*. Series FM1 no.**13**, Her Majesty's Stationery Office: London.
3. Department for Children, Schools and Families – Teenage Pregnancy Strategy (2007), accessed 27 January 2009, available at: www.everychildmatters.gov.uk/health/teenagepregnancy/statistics/
4. Office for National Statistics (2007) *Conception Statistics, Conceptions for women resident in England and Wales, 2005,* available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=15055
5. Office for National Statistics (2007) Report: 'Conceptions in England and Wales, 2005', *Health Statistics Quarterly* **33**, 64–68, available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
6. Moser K, Macfarlane A, Chow Y H *et al* (2007) 'Introducing new data on gestation-specific infant mortality among babies born in 2005 in England and Wales', *Health Statistics Quarterly* **35,** 13–27, available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
7. Moser K and Hilder L (2008) 'Assessing quality of NHS Numbers for Babies data and providing gestational age statistics', *Health Statistics Quarterly* **37,** 15–23, available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
8. Moser K, Stanfield K M and Leon D A (2008) 'Birthweight and gestational age by ethnic group, England and Wales, 2005: introducing new data on births', *Health Statistics Quarterly* **39,** 22–31, available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
9. Patel R, Steer P, Doyle P *et al* (2006) 'Does gestational age vary by ethnic group? A London based study of over 122,000 pregnancies with spontaneous onset of labour', *International Journal of Epidemiology* **2003:33,** 107–13.
10. Macfarlane A and Mugford M (2000) *Birth Counts Statistics of pregnancy and childbirth* Volume **1**, text, The Stationery Office: London.
11. Department of Health Statistical Bulletin *Abortion Statistics, England and Wales: 2006*. Accessed 27 January 2009, available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_075697
12. Hilder L, Moser K, Dattani N and Macfarlane A (2007) 'Pilot linkage of NHS Numbers for Babies data with birth registrations', *Health Statistics Quarterly* **33**, 25–33, available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk–6725
13. Information Statistics Division for Scotland (2007) *Teenage Pregnancy Statistics, year ending December 2006,* accessed 27 January 2009, available at: www.isdscotland.org/isd/5699.html

An investigation into the impact of question change on estimates of General Health Status and Healthy Life Expectancy

Michael Smith and
Chris White
Office for National Statistics

This article investigates the likely effects of incorporating the European Union Statistics on Income and Living Conditions (EU-SILC) general health question upon Office for National Statistics (ONS) estimates of general health and healthy life expectancy (HLE). The analysis indicates that while these estimates will undergo revision following the integration of the EU-SILC general health question, for the most part the underlying trend remains unaffected. Incorporation of the EU-SILC question in the reporting of UK health statistics will improve comparability with other EU member states, and provide a stronger indicator of functional health status. ONS will adopt the EU-SILC general health question exclusively from the reporting period 2006–08. However, to further clarify the implications of this transition, ONS will present two estimates of HLE based on the original and EU-SILC general health questions for the period 2005–07. This article has important implications for setting targets and monitoring progress in Public Sector Agreement Indicators for fitness for work beyond the state pension age and healthy ageing.

Introduction

The general health question contained within the European Union (EU) Statistics on Income and Living Conditions (SILC) Minimum European Health Module has been included in the General Household Survey (GHS) of Great Britain (GB) and the Continuous Household Survey (CHS) of Northern Ireland since 2005, following a joint World Health Organisation-EU recommendation to provide consistency across European countries. It is designed to capture the health status of populations, without regard to temporary health problems.[1,2]

The Office for National Statistics (ONS) currently uses a different question on general health, asked in the GHS and CHS, to calculate the prevalence of self-reported general health in GB and the United Kingdom (UK). There are two principal differences between this original question and the SILC general health question: firstly, the number of response categories increases from three to five in the latter; secondly, the reference to an explicit period of 12 months is excluded in the SILC question (Box One). These changes risk a discontinuity in the general health time series in GB, built up since 1977, and the revised healthy life expectancy (HLE) time series for the UK reported by the ONS since 2000–02.[3] It is important to appraise this risk and investigate the source, direction and magnitude of any discontinuities that arise: firstly to promote user understanding of this change; secondly, to maintain the integrity of these indicators of population health.

HLE, defined as expected years of life in 'Good' health, is derived, in part, from the self-reported health of respondents sampled in the GHS and the CHS. ONS uses a simple dichotomised definition of health status to construct estimates of HLE: survey responses are collapsed into a binary 'Good' and 'Not good' health variable without account taken of intermediate states. This approach involves imposing an arbitrary cut-off

point somewhere between the extremes of the scale. In the case of the SILC question (Box One), the EU definition of 'Good' health contains the response categories Very good and Good. This definition has been shown to improve identification of underlying inequality in health at a subnational level and is currently used for cross-national comparisons of self-reported general health within the EU.[4,5] ONS will adopt this definition in its future reporting of HLE to improve coherence with other EU member states and set a benchmark for future estimates at local authority level.

Box one

Original general health question *'Over the last 12 months would you say your health has on the whole been...'*	Dichotomised definition	Harmonised SILC general health question *'How is your health in general? Is it...'*	Dichotomised definition
Good?	'Good' health	Very good?	'Good' health
Fairly good?		Good?	
Not good?	'Not good' health	Fair?	'Not good' health
		Bad?	
		Very bad?	

Footnote: In the text, references to self-reported and dichotomised health states will follow the conventions of the table above such that references to dichotomised health states will appear within quotation marks.

Methods

This paper considers two versions of the general health question asked in three different surveys during 2005–06: the GHS and CHS, which contain both the original and the SILC general health questions, and the Health Survey for England (HSE) which contains a question consistent with the SILC question.

The GHS and CHS have asked both the original and SILC general health questions since 2005. The analysis presented here uses data from these surveys collected in 2005 and 2006. In 2005, the GHS changed to a longitudinal rotating panel design: the 2006 sample therefore consists of three-quarters of the 2005 sample, with the remaining quarter composed of new entrants to the survey. For this analysis, the use of 2006 GHS data is restricted to new survey entrants to maintain consistency with the cross-sectional nature of previous data used in the construction of estimates of HLE. Analyses of men and women in the UK, GB and England are presented. Separate analyses for Wales, Scotland and Northern Ireland were excluded because the available data on these countries were inadequate for meaningful comparison.

External validation of survey response

The SILC general health question follows the original question in both the GHS and CHS. The presence of two adjacent questions on general health status in the same survey has the potential for introducing bias, arising from ordering and exposure effects. These effects can obscure or distort the true effect of question change on the prevalence of 'Good' health and HLE. To assess the likely presence of these effects on responses to the SILC question, data from the GHS covering England were compared with a contemporaneous external data source, namely the HSE.

Responses to the general health question in the HSE 2005 and 2006 were compared with those of the English sample of the GHS over the same period. The prevalence of the different health states in each survey was age-standardised to the European standard population to control for possible differences in the age structure of the two samples.

Comparison of self-reported health by question

The prevalence of each health state was calculated from responses to the original and SILC general health questions and comparisons were made between both the dichotomised 'Good' and 'Not good' health states, according to question, and the prevalence of limiting long-standing illness (LLSI) in the survey populations. This latter comparison was undertaken to shed light on the possibility of differences in the relationship between subjective well-being, as measured with each question, and functional health status.

Translation of survey responses and development of adjustment factors

Self-reported responses to the original general health question in the GHS and CHS for the UK, GB and England in 2005–06 were mapped to subsequent responses to the SILC question, and an algorithm was developed to define the translation in self-reported health states between the questions. These translations were then further refined and used to simulate the dichotomised EU definition of 'Good' and 'Not good' health on historic GHS and CHS data.

Adjustment factors (Box Two) based on movements between self-reported health states from the original to the SILC question were applied to historic data by sex and discrete age groups (that is 16–19, 20–24, 25–29 ... 85+), in order to simulate the adoption of the harmonised general health question on the existing time series of general health data. In the first instance, to validate this approach, comparisons were made between the proportions of people in 'Good' health, as defined using actual and simulated GHS (England) and HSE general health survey data between

Box two

Adjustment factors

Factors based on the translation of self-reported health states from the original to the harmonised SILC general health question were applied to historic data according to the following equation.

'Good' health = $(a_i - (a_i\alpha_i)) + ((b_i\beta_i) + (c_i\gamma_i))$

'Not good' health = $((b_i + c_i) + (a_i\alpha_i)) - ((b_i\beta_i) + (c_i\gamma_i))$

i = age interval

a = number reporting Good health in response to original question

b = number reporting Fairly good health in response to original question

c = number reporting Not good health in response to original question

α = proportion of respondents reporting Good health in response to the original general health question and who subsequently report Fair or Bad or Very bad health in response to the harmonised general health question.

β = proportion of respondents reporting Fairly good health in response to the original general health question and who subsequently report Good or Very good health in response to the harmonised general health question.

γ = proportion of respondents reporting Not good health in response to the original general health question and who subsequently report Good or Very good health in response to the harmonised general health question.

Proportions of people originally reporting Fairly good health and who subsequently reported Fair, Bad or Very bad health are not included in the equation since this proportion of people does not affect the overall proportion of people appearing in 'Good' or 'Not good' health according to the new dichotomy. Similarly proportions of people reporting Not good health and who subsequently report Fair health are also not included.

1991–93 and 2004–06. Further comparisons were made between actual and simulated GHS (GB) data between 1980–82 and 2004–06. Tables of adjustment factors applied to actual data to derive simulated estimates of the prevalence of 'Good' health in the population from the SILC general health question are shown in the Appendix, Tables A1–A4.

Calculation of healthy life expectancy

ONS reports HLE for the UK and constituent countries. HLE is derived partly from survey responses and is defined as the expected years of life in 'Good' health (Box One). HLE is calculated using the Sullivan method incorporating national period life expectancies.[6,7] Briefly, the prevalence of self-reported 'Good' and 'Not good' health by country, sex and five-year age band is calculated from responses to the GHS and CHS, and aggregated over three years. Because the GHS and CHS do not include residents of communal establishments, such as nursing homes, the prevalence of the various health states in this population is based on data from the 2001 Census for all the years covered. The proportion of the population residing in communal establishments is adjusted to match current aggregated mid-year population estimates.

A combined survey and communal establishment health state prevalence is multiplied by the total person years lived at a given age interval, calculated from aggregated mid-year population estimates and period life tables, to give the total number of person years lived at that age interval in 'Good' and 'Not good' health. The total number of person years in 'Good' health at a given age is then divided by the number of people surviving to that age to give an estimate of HLE. The methods and the data sources used to calculate health expectancies are reported in further detail in the article 'Review of sources and methods to monitor healthy life expectancy' published in *Health Statistics Quarterly* 26.[6]

Impact of general health question change on healthy life expectancy time series

It is well established that self-reported health is significantly associated with age, sex and socio-economic position.[8,9,10,11,12,13] The presence of these relationships in GHS and CHS data from 2005–06 was explored using multiple logistic regression modelling, with the idea of refining the translation algorithm further. A sample member's socio-economic position was determined by assigning the condensed, 3-analytic class National Statistics Socio-economic Classification of the household reference person (HRP NS-SEC).[14] The results are presented in Table A5 in the Appendix.

In an approach designed to simulate the effects of adopting the SILC general health question on estimates of HLE between 2000–02 and 2004–06, adjustment factors (Box Two), taking account of the HRP's NS-SEC, were applied to GHS data over this period and to CHS data between 2001–03 and 2004–06 (HRP NS-SEC was not available for the CHS in 2000) to derive adjusted proportions of 'Good' and 'Not good' health in each year and calculate 'simulated' estimates of HLE. These were compared with the original estimates to ascertain dissonance. Tables of adjustment factors by age and sex and HRP NS-SEC for the UK, GB and England are shown in the Appendix, Tables A6–A11.

Results

Comparison of responses to the SILC general health question in the GHS (England) and HSE

The age-standardised prevalence of self-reported health states calculated from responses to the SILC general health question in the GHS (England only sample) and the HSE for 2005–06 are shown in Table 1.

Overall, the proportion of respondents reporting their general health as Very good was higher in the GHS than in the HSE, while proportions of respondents reporting either Good or Very bad were lower. There were no differences in the distribution of self-reported general health states between surveys among females (data not shown), but among males self-reports of Very good and Very bad differed: the proportion of respondents reporting Very good health was higher in the GHS (42.8 per cent ± 0.8 (95 per cent confidence interval (CI))) than in the HSE (40.5 per cent ± 0.8 (95 per cent CI)); the proportion of respondents reporting Very bad health was lower in the GHS (0.7 per cent ± 0.2 (95 per cent CI)) than the HSE (1.2 per cent ± 0.2 (95 per cent CI)).

After dichotomising responses to the European definition (Box One), no difference in the prevalence of 'Good' health between the GHS and HSE was observed: the proportion of the population in 'Good' health as a whole was approximately 81 per cent in both surveys. Similarly, no difference was observed for males or females in the two surveys (data not shown).

Table 1

Comparison of age-standardised[1] self-reported health rates between the General Household Survey (England) (GHS) and the Health Survey for England (HSE) in 2005–06, all ages

	Response category	Per cent	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
GHS (Harmonised SILC) *How is your health in general? Is it...*	Very good	41.9*	41.3	42.4
	Good	39.6*	39.0	40.3
	Fair	13.6	13.3	14.0
	Bad	3.9	3.7	4.2
	Very bad	0.9*	0.8	1.0
Dichotomised 'Good' health		81.5	81.0	82.0
Sample size n= 25,986				
HSE** *How is your health in general? Would you say it was...*	Very good	40.1*	39.6	40.7
	Good	41.1*	40.5	41.7
	Fair	13.9	13.6	14.3
	Bad	3.7	3.5	3.9
	Very bad	1.1*	1.0	1.2
Dichotomised 'Good' health		81.2	80.8	81.6
Sample size n = 30,922				

1 Directly age-standardised rate using the European standard population.
* Significant difference between General Household Survey (England) and the Health Survey for England.
** Source: Department of Health

Comparison of responses to original and SILC general health questions 2005–06

The distribution of responses to the original and SILC questions in the UK, GB and England using GHS and CHS data are shown in Table 2.

Self-reported general health was consistent across countries in question specific responses. For example, in the UK, GB and England a less than 0.8 per cent variation in responses to each question was observed.

After dichotomising responses, the total prevalence of 'Good' health was 9 per cent lower using the SILC question compared to the original. This margin of difference (9 per cent) was the same for both males and females.

The prevalence of LLSI in the survey populations was observed to increase with worsening self-reported general health (Table 3). The dichotomised general health states also conformed to this pattern, but to a different degree of magnitude for each definition: a significantly greater proportion of people defined in 'Good' health under the existing definition reported having a LLSI than did under the EU definition of 'Good' health (11.7 per cent compared with 7.8 per cent respectively in the UK).

Table 2 Comparison of responses to original and harmonised SILC general health questions, 2005–06, all ages

	Response category	United Kingdom			Great Britain			England		
		Per cent	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Per cent	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Per cent	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Original *Over the last 12 months would you say your health has on the whole been ...*	Good	64.4	64.0	64.9	64.6	64.1	65.1	64.8	64.2	65.4
	Fairly good	23.7	23.3	24.2	23.6	23.1	24.1	23.6	23.1	24.1
	Not good	11.8	11.5	12.2	11.8	11.4	12.2	11.6	11.2	12.0
Dichotomised 'Good' health		88.2	87.8	88.5	88.2	87.8	88.6	88.4	88 .0	88.8
Harmonised SILC *How is your health in general? Is it...*	Very good	40.4	40.0	40.9	40.1	39.5	40.7	39.7	39.1	40.3
	Good	38.8	38.4	39.3	38.9	38.4	39.5	39.5	38.9	40.1
	Fair	14.7	14.3	15.0	15.1	14.7	15.5	15.2	14.8	15.6
	Bad	5.0	4.8	5.2	4.7	4.5	2.7	4.5	4.3	4.8
	Very bad	1.1	1.0	1.2	1.1	1.0	1.2	1.0	0.9	1.2
Dichotomised 'Good' health		79.3	78.9	79.7	79.0	78.5	79.5	79.2	78.7	79.7
Sample size		n = 40,348			n = 30,125			n = 25,981		

Table 3 Comparison of proportional reporting of a limiting long-standing illness (LLSI) by self-reported health status in original and harmonised SILC general health questions, 2005–06, all ages

	Response category	United Kingdom			Great Britain			England		
		Per cent also reporting LLSI	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Per cent also reporting LLSI	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	Per cent also reporting LLSI	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval
Original *Over the last 12 months would you say your health has on the whole been ...*	Good	5.1	4.8	5.4	5.2	4.9	5.6	5.4	5.0	5.7
	Fairly good	29.7	28.8	30.6	28.8	27.8	29.9	28.4	27.3	29.6
	Not good	76.7	75.5	77.9	75.1	73.6	76.5	74.0	72.4	75.5
Dichotomised 'Good' health		11.7	11.4	12.1	11.6	11.2	11.9	11.5	11.1	11.9
Harmonised SILC *How is your health in general? Is it...*	Very good	3.0	2.8	3.3	3.2	2.9	3.5	3.3	2.9	3.6
	Good	12.7	12.2	13.3	12.5	11.9	13.1	12.5	11.9	13.2
	Fair	53.8	52.5	55.0	51.5	50.0	52.9	50.4	48.9	52.0
	Bad	88.2	86.7	89.5	86.8	84.9	88.5	86.4	84.3	88.2
	Very bad	92.6	89.8	94.7	92.3	88.9	94.7	91.5	87.6	94.3
Dichotomised 'Good' health		7.8	7.5	8.1	7.8	7.4	8.1	7.9	7.5	8.3
Sample size		n = 40,318			n = 30,090			n = 25,961		

Translation of health states

The consistency of survey participants' self-reported health in response to each question was compared to determine a possible change to the underlying distribution of general health status as estimated in response to the original question: the analysis observed self-reported health in response to the SILC question to be somewhat better than their original rating (Table 4 and Figure 1).

Figure 1 The translation of self-reported health states from the original to the harmonised SILC general health question, 2005-06

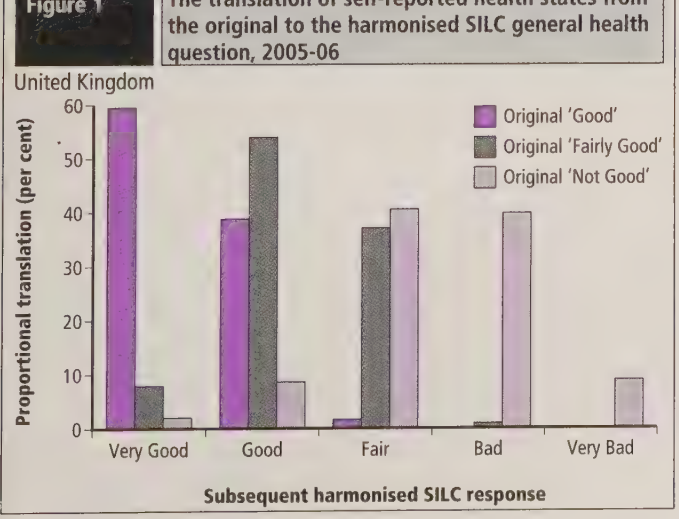


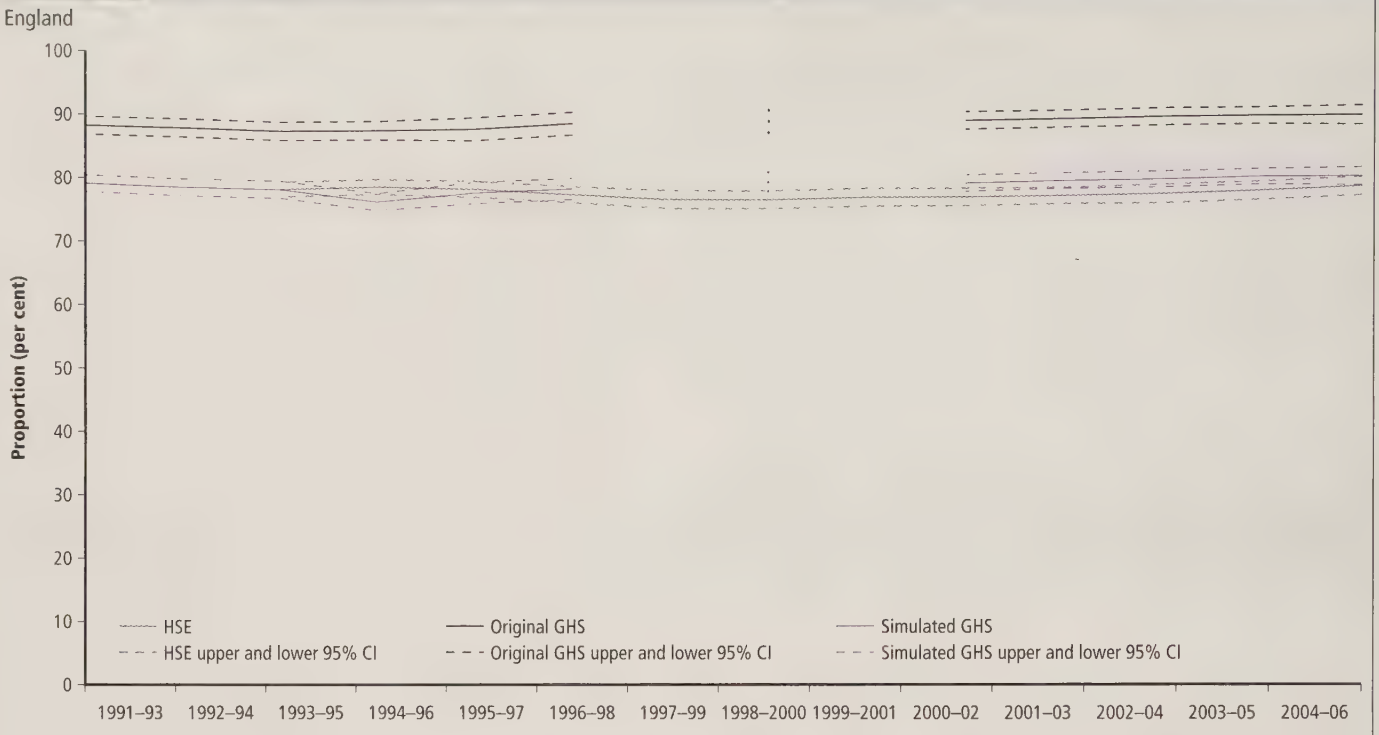
Table 4 Translation of health reporting from original to harmonised SILC general health questions, 2005–06

United Kingdom

Response to original general health question	Subsequent reporting of health in response to SILC general health question (per cent)				
	Very good	Good	Fair	Bad	Very bad
Good	59.5	38.8	1.6	–	–
Fairly good	7.9	54.0	37.1	0.9	–
Not good	2.0	8.6	40.6	39.9	8.9

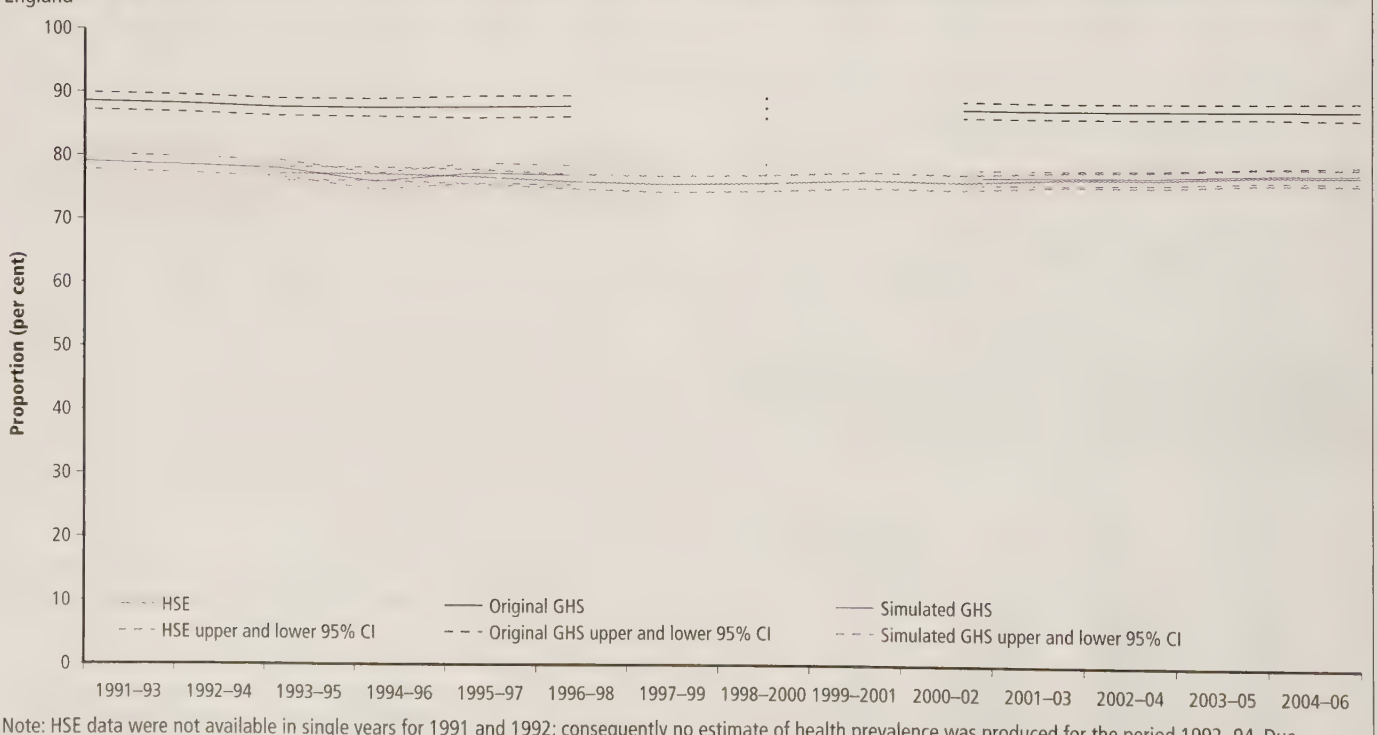
Results for the UK show that more than half of respondents (51.2 per cent) who reported their general health in the category Not good in response to the original general health question, subsequently reported Fair or a better health state in response to the SILC question; similarly 61.9 per cent of those who reported Fairly good health under the original question subsequently reported Good or Very good health under the SILC general health question. For a small proportion of people, health states worsened: under the original general health question 1.6 per cent of people who reported Good health and 0.9 per cent of people who reported Fairly good health subsequently reported worse health states in response to the SILC question.

Figure 2 Age standardised proportion of adult males in 'Good' health, between 1991–93 to 2004–06



Note: HSE data were not available in single years for 1991 and 1992; consequently no estimate of health prevalence was produced for the period 1992–94. Due to review and redevelopment periods, no GHS survey was carried out in the years 1997 and 1999. Consequently, aggregated estimates of health prevalence were not produced for the GHS for the periods 1997–99 and 1999–2001. In addition, aggregated estimates for the GHS covered only two years in the following periods, 1995–97, 1996–98 and 1998–2000.

Figure 3 Age standardised proportion of adult females in 'Good' health, between 1991–93 to 2004–06



Note: HSE data were not available in single years for 1991 and 1992; consequently no estimate of health prevalence was produced for the period 1992–94. Due to review and redevelopment periods, no GHS survey was carried out in the years 1997 and 1999. Consequently, aggregated estimates of health prevalence were not produced for the GHS for the periods 1997–99 and 1999–2001. In addition, aggregated estimates for the GHS covered only two years in the following periods, 1995–97, 1996–98 and 1998–2000.

Simulating the adoption of the SILC general health question on historic survey data

The age-standardised prevalence of 'Good' health for adult males and females in England between 1991–93 and 2004–06, calculated using original and simulated GHS (England) data and HSE data, are shown in Figures 2 and 3. Estimates of the prevalence of 'Good' health for males and females over this period were consistently around 10 per cent higher in original compared to simulated GHS and HSE data. There was no difference between HSE and simulated GHS estimates.

The prevalence of 'Good' health using original and simulated GHS data for adult males and females in GB between 1980–82 and 2004–06 are shown in Figures 4 and 5.

The proportion of males and females in 'Good' health is lower in simulated, compared to original, GHS data. On average between 1980–82 and 2004–06, 87.6 per cent of men and 87.0 per cent of women were in 'Good' health according to original data compared to 76.6 per cent of men and 75.5 per cent of women in this health state over the same period according to simulated data. Simulation resulted in an average reduction in the proportion of 'Good' health by around 11 per cent (range = 10.4 to 11.7) for men and around 11.5 per cent (range = 10.8 to 12.3) for women. Thus, there was good consistency over time, with a variation between original and simulated data of around 1.3 per cent for men and 1.5 per cent for women. Overall, between 1980–82 and 2004–06, the prevalence of 'Good' health declined for males by 3 per cent in both original and simulated data; for females there was a 0.6 per cent decline observed in original data, but no change in simulated data.

Impact on estimates of healthy life expectancy

Estimates of HLE for the current time series (2000–02 to 2004–06) were compared to simulated estimates calculated using age, sex and HRP NS-SEC specific adjustment factors applied to historic survey data over the period 2000–02 to 2004–06 for the GHS and 2001–03 to 2004–06 for the CHS.

Original and simulated estimates of HLE for men and women at birth and at age 65 in the UK, GB and England are shown in Tables 5 and 6.

The original estimates of HLE were significantly higher than simulated estimates for men and women at birth and at age 65 in the UK, GB and England for each period in the time series. For men at birth, simulated HLE was between 9.5 and 10.2 per cent lower, equating to a fall of between 6.4 and 7.0 years of estimated life spent in 'Good' health compared to published estimates derived from original data. At age 65, simulated estimates of HLE were between 21.8 and 25.0 per cent lower than original estimates, equating to a loss of between 2.6 and 3.1 years of life in 'Good' health. The falls in estimated HLE for women were greater than for men, with a loss of between 10.7 to 11.6 per cent, or 7.5 to 8.1 years, at birth and between 24.4 and 26.4 per cent, or between 3.5 to 3.8 years, at age 65 in simulated compared to original estimates.

There were no significant differences in trends over time between estimates of HLE for the UK, GB and England using either original or simulated data for men or women at birth or at age 65. HLE for women was greater than for men at birth and at age 65 in the UK, GB and England and the magnitude of these differences is declining over time according to both original and simulated estimates.

Between 2000–02 and 2004–06, original estimates of HLE for men rose by 1.4 years at birth and 0.9 years at age 65 for both GB and England. The increase in HLE for simulated estimates was slightly lower at 0.9 years and 1.2 years for GB and England, respectively, at birth and 0.6 years for both GB and England at age 65. For women, the increases in original estimates were 0.6 years at birth and 0.5 years at age 65 for GB and England. The increase in HLE according to simulated estimates for women were more variable with a smaller increase of 0.5 years for GB, and a larger increase of 0.9 years for England, at birth and a smaller increase of 0.4 years for GB, and equivalent increase (0.5 years) for England, at age 65.

The changes in the proportion of life spent in 'Good' health (HLE divided by life expectancy) between 2000–02 and 2004–06 was also variable: for men at birth the proportion of life in 'Good' health rose slightly by 0.4 per cent in GB and England in original estimates; however, in simulated estimates, there was an equivalent increase in England (0.4 per cent); but in GB there was a slight decrease (0.1 per cent). For women at birth, original estimates of the proportion of life spent in 'Good' health decreased by 0.3 per cent over the period for both GB and England; however, in simulated estimates, while an equivalent decrease was observed for GB (0.3 per cent), there was an increase of 0.3 per cent in England.

At age 65, changes over time in the proportion of life spent in 'Good' health differ more markedly for men: specifically, increases of 1.2 per cent and 1.3 per cent (GB and England, respectively) in original estimates contrast with a decrease of 0.2 per cent in GB and an increase of 0.2 per cent in England observed in simulated estimates. For women, the proportion of life in 'Good' health between 2000–02 and 2004–06 using the original estimates decreased by 0.1 per cent in GB and by 0.3 per cent in England; however, there was no change in simulated estimates over this period in GB but an increase of 0.4 per cent was observed in England.

Discussion

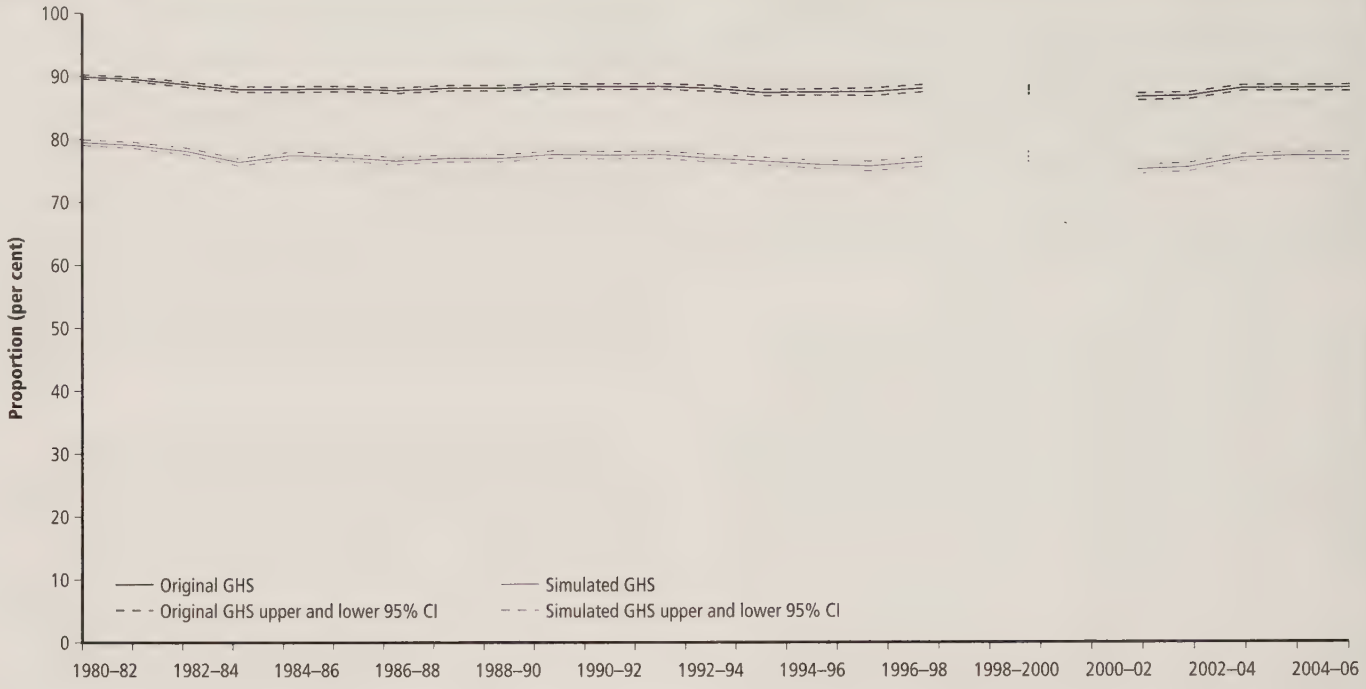
This article has investigated the implications of using the SILC general health question (asked on UK national household surveys from 2008), for national estimates of HLE calculated by ONS. The future use of the SILC question to define the general health of survey respondents will result in a clear reduction in prevalence of 'Good' health in the UK and constituent countries. The principal driver of this decrease is the use of the dichotomised European definition of 'Good' health (Box One), which is conceptually less inclusive than the current definition derived from the original general health question.[5] Our understanding of the impact of this change in the prevalence of 'Good' health in the population, and thereby estimates of HLE, has been assisted by the inclusion of the SILC general health question in both the GHS and CHS since 2005.

Response bias

The placement and concurrence of the two general health questions in the 2005 and 2006 GHS and CHS samples risks the introduction of bias resulting from exposure and order effects. This was assessed by comparing the responses to the SILC question in the GHS (England) with responses to an identical question asked in the HSE. It was found that while there were differences in the proportions of some responses between surveys, particularly for men, these differences attenuated in comparisons using the dichotomised EU definition of 'Good' health. It is beyond the scope of this study to ascertain whether the differences observed between the surveys were due to inter-survey variability, question exposure, question order or mode effects (see Kalton and Schuman for a detailed review of the complex issues surrounding the effects of question design and order on participant response).[15] However, the small differences detected in dichotomised responses suggests any possible exposure and order effects are unlikely to invalidate comparisons of the prevalence of 'Good' health using different definitions and, by implication, estimates of HLE. Consequently, the potential impact of adopting the SILC general health question on future estimates of HLE can be adequately assessed using GHS and CHS data from 2005 and 2006.

Figure 4 Proportion of adult males in 'Good' health between, 1980–82 to 2004–06

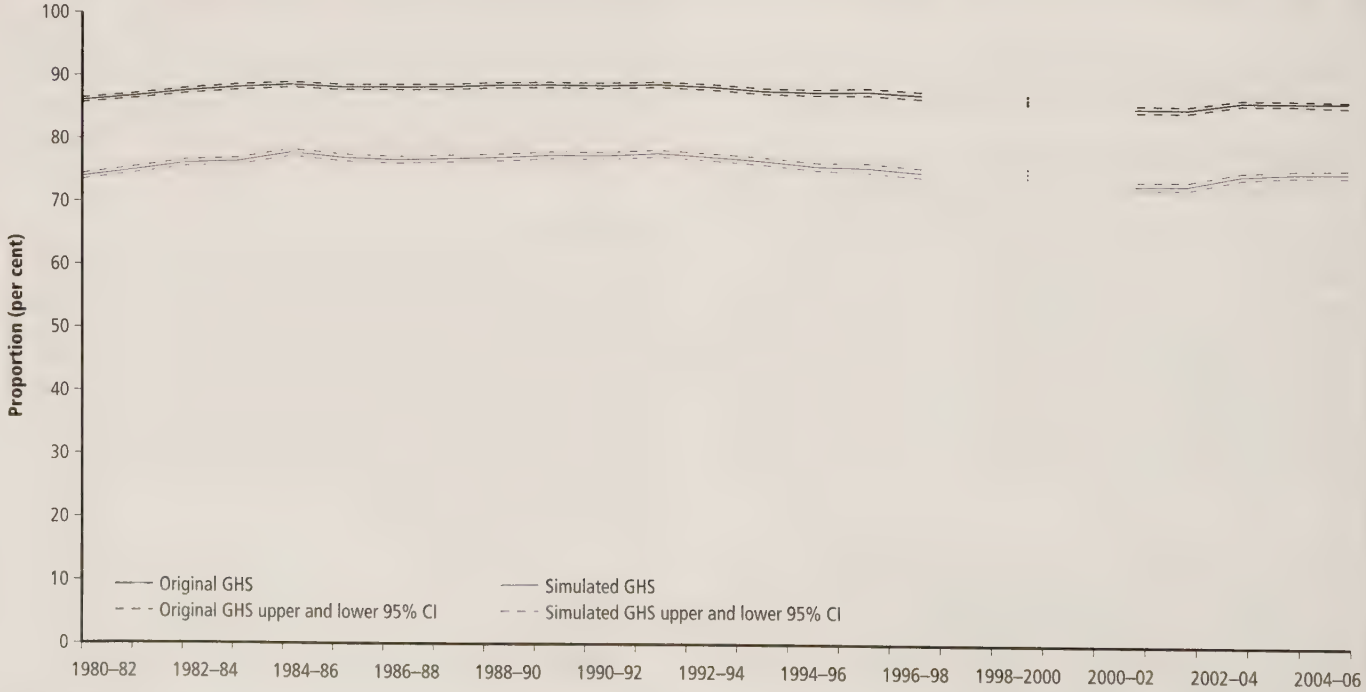
Great Britain



Note: Due to review and redevelopment periods, no GHS survey was carried out in the years 1997 and 1999. Consequently, aggregated estimates of health prevalence were not produced for the GHS for the periods 1997–99 and 1999–2001. In addition, aggregated estimates for the GHS covered only two years in the following periods, 1995–97, 1996–98 and 1998–2000.

Figure 5 Proportion of adult females in 'Good' health, between 1980–82 to 2004–06

Great Britain



Note: Due to review and redevelopment periods, no GHS survey was carried out in the years 1997 and 1999. Consequently, aggregated estimates of health prevalence were not produced for the GHS for the periods 1997–99 and 1999–2001. In addition, aggregated estimates for the GHS covered only two years in the following periods, 1995–97, 1996–98 and 1998–2000.

Table 5 Healthy life expectancy at birth and age 65 for males, by country and original and simulated survey data, 2000–02 to 2004–06

Year	Country	Life expectancy (Years)	Original survey data: Healthy life expectancy (Years)	Original survey data: Lower 95 per cent confidence interval	Original survey data: Upper 95 per cent confidence interval	Original survey data: Proportion of life in 'Good' health (per cent)	Simulated survey data: Healthy life expectancy (Years)	Simulated survey data: Lower 95 per cent confidence interval	Simulated survey data: Upper 95 per cent confidence interval	Simulated survey data: Proportion of life in 'Good' health (per cent)	Decrease in HLE between original and simulated survey data (per cent)	Difference between original and simulated survey data (Years)
At birth												
2000–02	United Kingdom	75.7	66.8	66.5	67.0	88.2	..	..	..	..	..	..
	Great Britain	75.7	66.8	66.5	67.1	88.3	60.5	60.1	60.8	79.9	9.5	–6.4
	England	76.0	67.1	66.8	67.4	88.3	60.3	59.9	60.7	79.3	10.2	–6.8
2001–03	United Kingdom	75.9	67.1	66.9	67.4	88.4	60.6	60.3	60.9	79.9	9.7	–6.5
	Great Britain	76.0	67.2	66.9	67.4	88.4	60.7	60.3	61.0	79.8	9.7	–6.5
	England	76.2	67.5	67.2	67.8	88.5	60.6	60.3	61.0	79.6	10.1	–6.8
2002–04	United Kingdom	76.3	67.6	67.3	67.8	88.6	60.8	60.4	61.1	79.7	10.0	–6.8
	Great Britain	76.3	67.6	67.4	67.9	88.6	60.7	60.4	61.1	79.6	10.2	–6.9
	England	76.6	68.0	67.7	68.2	88.7	61.0	60.6	61.4	79.6	10.2	–7.0
2003–05	United Kingdom	76.6	67.9	67.7	68.2	88.7	61.3	60.9	61.6	80.0	9.8	–6.7
	Great Britain	76.6	68.0	67.7	68.2	88.7	61.2	60.9	61.6	79.9	9.9	–6.7
	England	76.9	68.3	68.0	68.6	88.8	61.5	61.1	61.8	79.9	10.0	–6.9
2004–06	United Kingdom	76.9	68.2	67.9	68.4	88.7	61.4	61.0	61.7	79.8	10.0	–6.8
	Great Britain	76.9	68.2	67.9	68.5	88.7	61.4	61.0	61.8	79.8	10.0	–6.9
	England	77.2	68.5	68.2	68.8	88.7	61.5	61.1	62.0	79.7	10.2	–7.0
At age 65												
2000–02	United Kingdom	15.9	11.9	11.7	12.1	74.8	..	..	..	..	..	..
	Great Britain	15.9	11.9	11.7	12.1	74.8	9.3	9.1	9.5	58.5	21.8	–2.6
	England	16.1	12.0	11.8	12.2	74.3	9.3	9.0	9.5	57.6	22.6	–2.7
2001–03	United Kingdom	16.1	12.0	11.8	12.2	74.5	9.3	9.1	9.5	57.7	22.5	–2.7
	Great Britain	16.1	12.0	11.8	12.2	74.6	9.3	9.0	9.5	57.6	22.7	–2.7
	England	16.3	12.2	11.9	12.4	74.5	9.3	9.1	9.6	57.2	23.3	–2.8
2002–04	United Kingdom	16.4	12.3	12.1	12.5	74.9	9.2	9.0	9.4	56.2	25.0	–3.1
	Great Britain	16.4	12.3	12.1	12.5	75.1	9.4	9.2	9.7	57.5	23.5	–2.9
	England	16.5	12.5	12.3	12.7	75.6	9.5	9.3	9.8	57.8	23.6	–2.9
2003–05	United Kingdom	16.6	12.5	12.4	12.7	75.5	9.7	9.5	9.9	58.4	22.6	–2.8
	Great Britain	16.6	12.5	12.3	12.7	75.5	9.7	9.5	9.9	58.3	22.9	–2.9
	England	16.8	12.7	12.5	12.9	75.5	9.8	9.5	10.0	58.0	23.2	–2.9
2004–06	United Kingdom	16.9	12.8	12.6	13.0	76.0	9.9	9.6	10.1	58.5	23.1	–3.0
	Great Britain	16.9	12.8	12.6	13.1	76.0	9.9	9.6	10.1	58.3	23.3	–3.0
	England	17.1	12.9	12.7	13.2	75.6	9.9	9.6	10.2	57.8	23.6	–3.1

Table 6 Healthy life expectancy at birth and age 65 for females, by country and original and simulated survey data, 2000–02 to 2004–06

Year	Country	Life expectancy (Years)	Original survey data: Healthy life expectancy (Years)	Original survey data: Lower 95 per cent confidence interval	Original survey data: Upper 95 per cent confidence interval	Original survey data: Proportion of life in 'Good' health (per cent)	Simulated survey data: Healthy life expectancy (Years)	Simulated survey data: Lower 95 per cent confidence interval	Simulated survey data: Upper 95 per cent confidence interval	Simulated survey data: Proportion of life in 'Good' health (per cent)	Decrease in HLE between original and simulated survey data (per cent)	Difference between original and simulated survey data (Years)
At birth												
2000–02	United Kingdom	80.4	69.9	69.6	70.1	86.9	..	..	..	..	..	..
	Great Britain	80.4	69.9	69.6	70.2	87.0	62.1	61.7	62.5	77.2	11.2	–7.8
	England	80.6	70.1	69.8	70.4	87.0	62.0	61.6	62.4	76.9	11.6	–8.1
2001–03	United Kingdom	80.5	69.9	69.6	70.1	86.8	62.1	61.8	62.4	77.1	11.2	–7.8
	Great Britain	80.5	69.9	69.6	70.2	86.9	61.9	61.5	62.3	76.9	11.5	–8.0
	England	80.7	70.0	69.7	70.4	86.8	62.0	61.6	62.3	76.8	11.6	–8.1
2002–04	United Kingdom	80.7	70.1	69.8	70.3	86.8	62.3	62.0	62.7	77.2	11.0	–7.7
	Great Britain	80.7	70.1	69.8	70.4	86.9	62.2	61.8	62.5	77.0	11.3	–7.9
	England	80.9	70.2	69.9	70.6	86.8	62.2	61.8	62.6	76.8	11.5	–8.1
2003–05	United Kingdom	81.0	70.3	70.0	70.5	86.8	62.8	62.5	63.1	77.5	10.7	–7.5
	Great Britain	81.0	70.3	70.0	70.6	86.8	62.6	62.3	63.0	77.3	11.0	–7.7
	England	81.2	70.6	70.2	70.9	86.9	62.7	62.3	63.1	77.2	11.1	–7.9
2004–06	United Kingdom	81.3	70.4	70.1	70.7	86.6	62.7	62.4	63.1	77.2	10.9	–7.7
	Great Britain	81.3	70.5	70.1	70.8	86.7	62.6	62.2	63.0	76.9	11.2	–7.9
	England	81.5	70.7	70.3	71.0	86.7	62.9	62.5	63.3	77.2	11.0	–7.8
At age 65												
2000–02	United Kingdom	19.0	14.0	13.8	14.2	73.7	..	..	..	..	..	..
	Great Britain	19.0	14.0	13.8	14.3	73.9	10.5	10.2	10.7	55.1	25.4	–3.6
	England	19.2	14.2	14.0	14.4	74.0	10.5	10.2	10.8	54.7	26.1	–3.7
2001–03	United Kingdom	19.1	14.0	13.9	14.2	73.5	10.5	10.3	10.7	54.8	25.4	–3.6
	Great Britain	19.1	14.1	13.9	14.3	73.6	10.4	10.1	10.6	54.2	26.4	–3.7
	England	19.2	14.2	13.9	14.4	73.7	10.4	10.2	10.7	54.4	26.2	–3.7
2002–04	United Kingdom	19.3	14.3	14.1	14.5	73.9	10.7	10.5	10.9	55.4	25.0	–3.6
	Great Britain	19.3	14.3	14.1	14.5	74.0	10.6	10.3	10.8	54.8	25.9	–3.7
	England	19.4	14.4	14.2	14.6	74.2	10.6	10.4	10.9	54.8	26.2	–3.8
2003–05	United Kingdom	19.4	14.5	14.3	14.7	74.6	10.9	10.7	11.2	56.4	24.4	–3.5
	Great Britain	19.4	14.5	14.3	14.7	74.7	10.8	10.6	11.1	55.8	25.3	–3.7
	England	19.6	14.6	14.4	14.9	74.7	10.9	10.6	11.2	55.6	25.6	–3.8
2004–06	United Kingdom	19.7	14.5	14.3	14.7	73.7	11.0	10.7	11.2	55.7	24.4	–3.5
	Great Britain	19.7	14.5	14.3	14.8	73.8	10.9	10.6	11.1	55.1	25.3	–3.7
	England	19.9	14.7	14.4	14.9	73.7	11.0	10.7	11.3	55.1	25.3	–3.7

General health prevalence

The analysis of responses to the general health questions in the GHS and CHS 2005–06 suggest 9 per cent fewer people will be categorised in 'Good' health under the SILC general health question. There were fewer females categorised in 'Good' health than males, regardless of question; this finding suggests the presence of gender bias in the reporting of general health in response to different questions is unlikely.

Comparisons of self-reported health states and LLSI showed that those defined in 'Good' health under the SILC general health question were significantly less likely to report a limiting illness or disability than those defined in 'Good' health from the original question. This finding demonstrates the EU definition of 'Good' health has a stronger relationship with functional health status and thereby service need and fitness for work beyond the state pension age.

Survey response translation

The translation of self-reported health states from the original to the SILC question showed sample members to generally report a more favourable health state in response to the latter question. However, the pattern of more favourable reporting of health status in response to the SILC question did not translate into an improvement in the prevalence of 'Good' health classified under the EU definition. This arises because the EU definition of 'Good' health is more restrictive, only including the responses Very good and Good. The exclusion of the response category Fair in the classification of individuals to the dichotomised health status category 'Good' is supported by the relatively high prevalence of LLSI (that is between 50.4 and 53.8 per cent for the UK, GB and England) reported by those classifying their general health as Fair.

Simulated general health prevalence

The translation of responses from the original to the SILC general health question informed the development of factors to adjust historic survey data. These were used to simulate the use of the SILC question on published estimates of HLE, and thereby provide an insight into the likely impact of using this question in the future reporting of HLE in the UK. In the first instance, the prevalence of 'Good' health calculated from simulated GHS data (that is simulating the EU definition of health status from the SILC question) was compared to original GHS data, and also HSE data in a time series starting in 1991–93. In analyses using original GHS data and the existing definition of dichotomised health, there was a higher prevalence of 'Good' health in both men and women, compared with either the HSE or simulated GHS data over the same period; however, no differences in the prevalence of 'Good' health were detected between the HSE and the simulated GHS data. The uniformity in the prevalence of 'Good' health calculated using HSE and simulated GHS data between 1991–93 and 2004–06 supports the consistency observed between the SILC question in the GHS and the equivalent question in the HSE calculated for 2005–06. This suggests the method developed to adjust survey data by factors calculated from the translation of health states between the original and SILC questions in 2005–06 is reliable and appropriate for use in the simulation of historic survey data.

Between 1980–82 and 2004–06 the average prevalence of 'Good' health calculated from simulated data was some 11 per cent lower than the prevalence derived from original data (Figures 4 and 5). This difference in prevalence is somewhat greater than the 9 per cent reduction observed between the SILC general health question and the original general health question in 2005–06 (Table 2). This small discrepancy is partly a result of the different age range encompassed in each analysis: the actual 2005–06 data included the total population from birth; whereas the comparison of historic and simulated data between 1980–82 and 2004–06 was restricted to those aged 16 years of age and above. There was a high degree of consistency in the prevalence of 'Good' health over time between 1980–82 and 2004–06, particularly for men. These findings imply that the prevalence of 'Good' health in the population is likely to be around 9 to 11.5 per cent lower using the SILC general health question in future years.

Simulated healthy life expectancy

The likely impact of the reduction in the proportion of the population in 'Good' health on UK estimates of HLE reported by ONS since 2000–02 was investigated through simulation. Adjustment factors were further refined by taking account of the influence of the socio-economic position of the household reference person. The simulated estimates of HLE for the UK, GB and England between 2000–02 and 2004–06 were significantly lower than published estimates: at birth, around 7 years (10 per cent) for men and around 8 years (11 per cent) for women; at age 65, around 3 years (22 per cent) for men and around 3.5 years (25 per cent) for women.

A greater proportional loss of years spent in 'Good' health at older ages is to be expected using the SILC question because self-reported health is worse at older ages than at younger ages. Analysis of the translation of responses from the original to the SILC question shows most survey respondents report an improved health rating in response to the SILC general health question; however, the impact of these translations on classification to the EU definition varied by age. Specifically, although older people reported an improved health rating in response to the SILC question, this was insufficient to classify them to the dichotomised 'Good' health category.

The underlying trend in HLE over the five-year period 2000–02 to 2004–06 was of increasing years spent in 'Good' health for men and women using both the original and simulated general health questions. However, there were slight differences in the rate of change over this period depending on the question asked. For men, increases in HLE at birth and at age 65 were smaller in the simulated estimates compared with the original estimates in both GB and England; however, for women, increases over time were smaller in GB but equivalent or greater in England in the simulated compared to original estimates. Consequently, there were also slight differences between original and simulated estimates in the change over time in the **proportion** of life spent in 'Good' health. Over time, the proportion of life in 'Good' health changed less for simulated compared to original estimates of HLE, slightly reducing the magnitude of the overlying trend of increased proportions of life in 'Good' health for men at birth and at age 65. For women, the picture is more complex: in England at birth and at age 65, females experienced a slight increase in the proportion of life spent in 'Good' health in simulated estimates between 2000–02 and 2004–06, compared with a slight reduction over this period in original estimates. At birth and at age 65 in GB differences were negligible (≤0.1 per cent).

If current trends in HLE persist, adoption of the SILC general health question may lead to a slight contraction in the rate of increase in HLE observed under the original general health question in men. For women in England, rates of improvement in HLE appear likely to increase slightly after adoption of the SILC general health question than would be the case under the original question.

Conclusions

1. The original general health question ceased to be included in the GHS and CHS in 2008; consequently, only the SILC question will be available for analysis from 2008 onwards. The ONS will report estimates of HLE based on original and SILC general health

questions for the period 2005–07 after which estimates will be based exclusively on the SILC question.

2. Adoption of the SILC general health question will facilitate easier comparison with EU member states, particularly in terms of the prevalence of health states. There will remain, however, some discrepancies in HLE outputs since UK estimates are partly based on the inclusion of the communal establishment population derived from the 2001 Census.
3. Adoption of the harmonised SILC general health question and the European definition of 'Good' health will cause a marked, significant reduction in the prevalence of 'Good' health and estimates of HLE for men and women at birth and at age 65.
4. The revised measure is a more robust indicator of functional health status as measured by limiting long-standing illness.
5. If the current trend over time of increasing HLE persists, estimates derived using the SILC general health question are likely to increase at a slightly slower rate for men and an equivalent or marginally faster rate for women than would be the case using the original general health question. These differences are negligible and unlikely to lead to a notable change in the underlying pattern of improvement in HLE observed since 2000–02.

Key findings

- Comparison of responses to original and SILC general health questions gives a good indication of the extent of the impact of question change on the prevalence of 'Good' health and HLE in the population reported by ONS
- Possible confounding effects of concurrent general health questions are minimal
- Adoption of the SILC general health question will result in a significant reduction in the proportion of the population considered in 'Good' health
- The SILC general health question better reflects functional health status
- Estimates of HLE are likely to fall significantly with adoption of the SILC general health question
- Trends in increasing HLE over time are unlikely to be significantly affected by the change in general health question

References

1. Robine J-M, Jagger C and The Euro-REVES Group (2003) 'Creating a coherent set of indicators to monitor health across Europe. The Euro-REVES project', *European Journal of Public Health* **13** (**supplement 1**), 6–14.
2. de Bruin A, Picavet H S V and Nossikov A (eds) (1996) 'Health interview surveys. Towards international harmonisation', *World Health Organisation Regional publications, European Series*, no. **58**.
3. Office for National Statistics Health expectancies at birth & at age 65 in the United Kingdom. Available on the Office for National Statistics website: www.statistics.gov.uk/statbase/Product.asp?vlnk=12964
4. Organisation for Economic Co-operation and Development (2002) *OECD health data 2002: a Comparative Analysis of 30 countries*, Organisation for Economic Co-operation and Development: Paris.
5. Bajekal M and Purdon S (2002) 'Healthy life expectancy at Health Authority level: comparing estimates from the General Household Survey and the Health Survey for England', *Health Statistics Quarterly* **16**, 25–37. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
6. Breakwell C and Bajekal M (2005) 'Review of sources and methods to monitor healthy life expectancy', *Health Statistics Quarterly* **26**, 17–22. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
7. Office for National Statistics (2008) 'Report: Health Expectancies in the United Kingdom, 2004–06', *Health Statistics Quarterly* **40**, 77–80. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
8. Bowling A and Windsor J (2008) 'The effects of question order and response-choice on self-rated health status in the English Longitudinal Study of Ageing (ELSA)', *Journal of Epidemiology and Community Health* **62**, 81–85.
9. Crossley T F and Kennedy S (2002) 'The reliability of self assessed health status', *Journal of Health Economics* **21**, 643–58.
10. Bone M R, Bebbington A C, Jagger C *et al* (1995) *Health expectancy and its uses*, Her Majesty's Stationery Office: London.
11. Power C, Matthews S and Manor O (1998) 'Inequalities in self-rated health: explanations from different stages of life', *The Lancet* **351**, 1009–14.
12. White I R, Blane D, Morris J N and Mourouga P (1999) 'Educational attainment, deprivation-affluence and self-reported health in Britain: a cross sectional study', *Journal of Epidemiology and Community Health* **53**, 535–41.
13. Hyde M, Jakub H, Melchior M *et al* (2006) 'Comparison of the effects of low childhood socio-economic position and low adulthood socioeconomic position on self-rated health in four European studies', *Journal of Epidemiology and Community Health* **60**, 882–86.
14. Office for National Statistics The National Statistics Socio-economic Classification (NS-SEC), available on the Office for National Statistics website at: www.statistics.gov.uk/methods_quality/ns_sec/default.asp
15. Kalton G and Schuman H (1982) 'The effect of the question on survey responses: A review', *Journal of the Royal Statistical Society* Series A **145**, 42–73.

Appendix

Table A1 Adjustment factors for adult males

England

Age group	Adjustment factor		
	α^1 Good to Fair/Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
16–19	0.8	79.1	20.0
20–24	1.6	70.4	23.8
25–29	3.0	76.9	24.4
30–34	2.8	69.5	16.1
35–39	1.7	68.9	18.8
40–44	1.9	68.0	18.3
45–49	3.1	64.3	17.4
50–54	4.3	61.9	9.9
55–59	2.1	53.4	9.6
60–64	4.5	52.5	12.7
65–69	5.0	53.6	10.3
70–74	5.2	53.0	8.5
75–79	3.3	53.6	9.9
80–84	6.7	40.4	9.4
85+	5.2	50.0	10.9
Total	2.9	60.0	12.7

1 See Box Two.

Table A2 Adjustment factors for adult females

England

Age group	Adjustment factor		
	α^1 Good to Fair/Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
16–19	1.0	73.5	33.3
20–24	2.8	69.4	15.1
25–29	2.3	65.8	25.4
30–34	1.7	68.0	19.1
35–39	1.1	67.7	21.5
40–44	1.8	66.7	15.4
45–49	2.5	65.5	11.3
50–54	1.0	58.4	10.7
55–59	2.4	54.3	12.3
60–64	4.8	53.8	10.7
65–69	2.9	52.4	8.6
70–74	2.0	47.2	10.2
75–79	2.4	47.6	5.3
80–84	2.8	38.7	7.3
85+	6.6	43.6	3.4
Total	2.2	58.0	12.0

1 See Box Two.

Table A3 Adjustment factors for adult males

Great Britain

Age group	Adjustment factor		
	α^1 Good to Fair/Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
16–19	0.9	78.7	20.8
20–24	1.5	71.7	26.9
25–29	2.8	74.8	25.0
30–34	2.5	68.9	13.8
35–39	1.6	69.0	17.8
40–44	1.9	68.1	17.9
45–49	3.1	62.2	18.8
50–54	3.9	60.2	9.2
55–59	2.2	53.6	8.2
60–64	4.4	52.1	10.8
65–69	4.2	55.5	10.5
70–74	4.5	52.2	7.5
75–79	5.3	53.2	9.2
80–84	5.9	42.3	9.3
85+	4.7	54.2	9.8
Total	2.7	59.8	12.1

1 See Box Two.

Table A4 Adjustment factors for adult females

Great Britain

Age group	Adjustment factor		
	α^1 Good to Fair/Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
16–19	0.8	74.2	33.3
20–24	2.8	70.2	15.2
25–29	2.2	69.0	25.0
30–34	2.0	68.9	20.2
35–39	1.1	68.0	19.8
40–44	1.7	67.6	15.4
45–49	2.3	64.4	10.7
50–54	1.4	57.3	10.2
55–59	2.6	52.6	12.2
60–64	4.0	54.3	8.9
65–69	2.4	51.8	7.9
70–74	1.6	45.7	8.9
75–79	2.6	49.5	5.3
80–84	3.1	38.3	7.1
85+	5.1	43.6	3.7
Total	2.1	58.0	11.4

1 See Box Two.

Table A5 Variables associated with increased risk of reporting 'Not good' health

Variable	Odds ratio	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	p-value
Age (year-on-year increase)	1.035	1.033	1.036	<0.000
Male	1.000	:	:	:
Female	1.131	1.054	1.215	<0.001
HRP NS-SEC 1 – managerial and professional occupations	1.000	:	:	:
HRP NS-SEC 2 – Intermediate occupations	1.381	1.247	1.529	<0.000
HRP NS-SEC 3 – Routine and manual occupations	1.954	1.803	2.119	<0.000

Table A6 Adjustment factors for males by condensed HRP NS-SEC

United Kingdom

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	–	70.3	25.0	2.0	71.7	–	0.6	70.1	13.3
5–9	0.9	67.4	16.7	0.5	88.5	–	0.7	63.3	15.4
10–14	0.7	68.0	25.0	–	70.0	42.9	1.9	63.9	9.1
15–19	–	80.0	20.0	2.2	85.7	28.6	0.4	69.0	21.4
20–24	1.7	78.1	22.2	1.4	73.3	–	1.7	66.7	30.8
25–29	2.4	75.4	36.4	3.1	66.7	28.6	1.4	76.0	20.0
30–34	1.9	76.2	20.0	2.9	68.8	16.7	3.0	70.2	11.9
35–39	1.8	74.8	29.2	0.8	64.9	6.3	1.9	59.7	14.3
40–44	0.5	74.0	12.5	4.5	60.0	22.2	2.3	66.0	19.5
45–49	3.1	59.1	29.4	4.0	70.0	8.3	2.8	61.8	12.5
50–54	2.5	62.5	12.5	2.0	61.0	11.8	6.5	61.6	6.8
55–59	2.8	55.2	13.5	1.7	56.5	4.7	1.1	47.8	5.1
60–64	2.6	60.6	15.4	5.3	64.2	2.4	3.8	43.1	11.0
65–69	5.0	60.9	19.5	2.6	60.0	3.3	3.7	51.0	8.9
70–74	4.2	53.5	4.3	2.2	62.5	15.4	5.6	49.2	5.6
75–79	1.3	56.3	7.1	3.7	52.3	4.8	10.9	50.6	10.7
80–84	6.4	43.4	15.2	5.0	58.8	7.1	4.9	38.0	8.2
85+	3.2	63.6	10.0	10.0	50.0	8.3	4.0	51.3	8.7
Total	1.7	64.3	16.0	2.2	64.6	9.1	2.3	56.9	10.5

1 See Box Two.

Table A7 Adjustment factors for females by condensed HRP NS-SEC

United Kingdom

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	0.5	76.9	28.6	–	76.9	–	0.3	74.6	11.8
5–9	1.1	74.0	22.2	0.6	85.7	–	0.9	66.1	13.3
10–14	0.2	64.8	33.3	–	74.1	–	–	62.3	–
15–19	0.7	72.5	25.0	1.5	90.3	–	0.8	78.0	12.5
20–24	2.1	69.2	12.5	2.1	71.1	6.7	2.6	71.4	21.2
25–29	2.9	67.5	23.5	1.0	73.9	15.4	2.2	70.7	26.3
30–34	0.9	75.3	35.1	2.3	77.0	27.8	3.4	64.6	15.2
35–39	0.7	65.3	29.5	1.2	74.1	14.8	1.3	69.3	13.8
40–44	2.1	70.1	25.9	1.2	71.2	13.8	0.8	64.6	10.1
45–49	2.0	71.5	16.7	1.4	54.5	10.7	2.9	58.1	7.1
50–54	1.0	67.3	17.0	3.3	52.2	10.7	1.6	57.5	4.8
55–59	2.7	52.4	16.7	2.4	58.3	10.6	2.5	52.9	10.3
60–64	2.2	61.0	18.2	4.5	58.5	11.9	4.6	50.3	4.0
65–69	2.9	55.7	9.8	1.1	61.6	6.3	1.4	47.1	8.5
70–74	–	48.5	10.2	–	50.8	2.9	3.7	46.7	8.5
75–79	2.7	58.1	5.5	4.7	51.8	9.1	2.2	48.3	5.8
80–84	2.5	40.7	3.8	–	45.6	16.2	4.9	28.9	4.9
85+	4.3	60.9	3.4	9.5	40.9	4.5	–	40.3	1.8
Total	1.4	63.9	17.0	1.5	63.0	10.7	1.7	56.3	8.8

1 See Box Two.

Table A8 Adjustment factors for males by condensed HRP NS-SEC

Great Britain

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	–	72.3	33.3	1.6	73.0	–	0.7	71.8	14.3
5–9	0.7	69.8	20.0	0.6	89.5	–	0.9	65.1	16.7
10–14	0.7	71.7	25.0	–	76.5	50.0	2.0	67.3	9.1
15–19	–	78.8	22.2	2.5	90.5	16.7	0.5	67.6	23.1
20–24	1.8	76.7	33.3	1.6	69.2	–	2.0	62.5	30.8
25–29	2.5	73.5	40.0	3.5	65.4	28.6	1.6	79.1	20.8
30–34	2.0	75.3	23.5	2.2	64.3	20.0	3.5	68.8	10.0
35–39	1.6	73.6	28.6	0.9	70.6	6.7	1.7	60.3	15.2
40–44	0.5	73.6	13.0	5.3	62.5	18.8	2.6	66.3	23.5
45–49	3.3	60.2	35.7	3.5	71.9	9.1	2.6	59.8	14.3
50–54	2.6	63.2	15.6	2.2	61.5	14.3	7.6	56.8	4.6
55–59	2.9	55.8	14.9	1.9	56.1	5.1	1.2	48.5	6.1
60–64	2.8	58.9	16.1	6.0	62.2	3.0	4.4	42.0	11.0
65–69	4.5	63.2	21.6	3.0	61.4	–	4.0	48.1	9.0
70–74	2.7	50.6	4.7	2.6	61.9	16.7	6.5	47.2	6.3
75–79	1.4	59.3	8.1	4.3	50.0	5.0	11.3	48.7	11.1
80–84	6.8	43.2	12.9	5.3	61.5	7.1	5.6	38.9	8.2
85+	3.4	61.9	10.5	10.0	57.1	8.3	4.3	51.4	10.0
Total	1.7	64.6	17.5	2.4	65.0	9.1	2.5	56.1	11.0

1 See Box Two.

Table A9 Adjustment factors for females by condensed HRP NS-SEC

Great Britain

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	0.5	76.6	33.3	–	80.0	–	–	75.0	13.3
5–9	1.2	80.5	25.0	0.8	88.2	–	1.0	66.7	18.2
10–14	–	64.0	28.6	–	77.3	–	–	61.4	–
15–19	0.7	73.9	33.3	1.9	87.0	–	0.9	74.4	15.4
20–24	2.3	70.6	13.3	2.4	71.0	7.7	3.0	71.2	23.3
25–29	2.5	68.0	28.6	1.1	67.6	18.2	2.7	70.8	27.8
30–34	1.0	73.3	35.3	2.7	74.0	23.1	3.2	60.7	11.6
35–39	0.7	64.9	30.8	1.4	76.1	17.6	1.6	68.6	12.5
40–44	2.3	71.1	26.7	1.4	68.6	9.5	1.0	64.6	10.4
45–49	1.9	72.2	19.5	1.6	59.1	14.3	3.6	58.0	6.7
50–54	0.7	66.0	19.1	2.8	48.3	8.3	1.9	53.8	4.9
55–59	2.9	50.9	14.8	1.8	57.4	12.2	2.7	52.4	10.7
60–64	2.3	61.1	17.5	5.2	58.8	13.5	5.2	49.3	4.4
65–69	3.1	54.8	8.8	1.2	63.9	8.3	1.6	43.8	8.2
70–74	–	47.7	11.3	–	46.9	3.7	4.3	43.9	9.3
75–79	1.5	58.5	6.3	5.0	51.0	10.0	2.6	43.2	3.4
80–84	2.7	39.6	3.8	–	47.2	15.2	5.2	31.0	5.3
85+	4.5	57.1	3.8	11.8	42.9	5.6	–	37.1	1.9
Total	1.4	63.8	17.7	1.7	62.2	11.1	1.9	54.5	8.8

1 See Box Two.

Table A10 Adjustment factors for males by condensed HRP NS-SEC

England

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	–	14.3	66.7	1.8	71.4	16.7	0.8	75.4	15.4
5–9	0.8	22.2	70.3	0.7	94.1	–	1.0	64.4	11.1
10–14	0.9	12.5	66.7	0.6	68.8	50.0	1.5	71.7	12.5
15–19	–	25.0	77.8	1.8	94.7	20.0	0.5	64.5	16.7
20–24	2.0	28.6	81.5	3.9	55.6	20.0	0.8	62.5	12.5
25–29	2.5	26.7	72.1	2.5	65.0	20.0	2.5	85.0	26.3
30–34	2.3	28.6	65.6	2.3	72.7	–	3.2	73.5	11.1
35–39	2.0	27.8	73.0	1.0	67.7	16.7	1.8	64.6	14.3
40–44	0.7	13.0	72.7	2.0	65.7	25.0	3.8	65.7	22.6
45–49	3.4	19.2	60.0	2.6	70.6	15.8	3.3	65.3	17.5
50–54	4.0	14.7	65.0	2.5	53.3	14.3	6.3	62.5	6.4
55–59	3.0	17.4	52.7	2.5	60.0	6.9	0.7	50.0	6.1
60–64	2.1	15.7	58.0	6.4	52.6	3.7	6.0	47.9	15.5
65–69	5.0	11.1	57.7	5.2	58.8	4.5	4.1	49.0	12.3
70–74	3.0	4.9	54.8	3.4	57.6	23.5	7.3	47.7	7.0
75–79	2.0	9.1	56.4	–	61.5	4.5	6.5	48.6	11.1
80–84	2.6	7.1	48.6	9.1	30.0	16.7	7.5	35.1	9.5
85+	3.6	6.7	43.5	–	55.6	11.1	10.0	59.3	13.6
Total	1.9	15.1	62.7	2.2	63.9	12.7	2.7	58.8	12.2

1 See Box Two.

Table A11 Adjustment factors for females by condensed HRP NS-SEC

England

Age group	Class 1 HRP NS-SEC			Class 2 HRP NS-SEC			Class 3 HRP NS-SEC		
	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)	α^1 Good to Fair/ Bad/Very bad health (per cent)	β^1 Fairly good to Good/Very good health (per cent)	γ^1 Not good to Good/Very good health (per cent)
0–4	0.6	73.8	25.0	–	73.9	–	–	72.7	14.3
5–9	1.4	75.7	22.2	0.9	81.3	–	1.1	73.2	22.2
10–14	–	69.0	14.3	–	84.2	–	–	59.5	9.1
15–19	1.3	72.5	25.0	1.1	80.0	–	1.0	78.9	20.0
20–24	2.0	71.4	15.4	1.4	66.7	–	3.5	71.7	24.0
25–29	2.5	62.5	35.3	–	60.7	10.0	3.5	71.9	27.6
30–34	1.2	67.6	26.7	2.1	74.5	27.3	2.0	64.2	16.3
35–39	0.8	65.7	34.2	–	81.8	13.3	2.3	60.9	11.8
40–44	2.5	71.9	21.4	0.8	68.2	15.0	1.6	58.7	12.7
45–49	2.0	75.8	17.1	1.1	61.5	11.8	4.2	55.7	8.5
50–54	0.4	63.2	19.1	3.4	47.9	5.3	0.7	58.2	5.0
55–59	2.7	57.0	19.2	1.1	47.2	5.7	3.0	55.9	12.1
60–64	2.8	53.4	13.9	6.3	64.7	10.3	6.6	51.4	9.6
65–69	3.0	55.6	15.2	1.7	66.7	8.0	2.7	43.2	6.8
70–74	–	48.2	7.3	–	37.1	5.3	5.9	49.6	13.9
75–79	–	56.0	7.7	6.1	48.5	4.8	3.3	43.4	4.3
80–84	3.4	40.0	5.4	–	47.5	13.0	3.6	31.1	7.0
85+	5.9	54.2	5.3	20.0	26.7	5.6	–	42.3	2.3
Total	1.5	62.9	17.1	1.4	61.4	8.9	2.1	55.7	10.8

1 See Box Two.

Tables

			Page
	Notes to tables		43
	Population		
1.1	International	Selected countries	44
1.2	National	Constituent countries of the United Kingdom	47
1.3	Subnational	Government Office Regions of England	48
1.4	Age and sex	Constituent countries of the United Kingdom	49
1.5	Age, sex and legal marital status	England and Wales	52
	Vital statistics		
2.1	Summary	Constituent countries of the United Kingdom	54
2.2	Key demographic and health indicators	Constituent countries of the United Kingdom	56
	Live births		
3.1	Age of mother	England and Wales	57
3.2	Outside marriage: age of mother and type of registration	England and Wales	58
	Conceptions and abortions		
4.1	Age of women at conception	England and Wales (residents)	59
4.2	Abortions: age and gestation.	England and Wales	60
	Expectation of life		
5.1	(In years) at birth and selected age	Constituent countries of the United Kingdom	61
	Deaths		
6.1	Age and sex	England and Wales	62
6.2	Subnational	Health Regional Office areas of England	63
6.3	Selected causes and sex	England and Wales	64

StatBase®

Health Statistics Quarterly tables are now available on StatBase® which can be accessed via our website www.statistics.gov.uk

Symbols

.. not available
: not applicable
- nil or less than half the final digit shown
blank not yet available

Notes to tables

Time series
For most tables, years start at 1971 and then continue at five-year intervals until 1991. Individual years are shown thereafter. If a year is not present the data are not available.

United Kingdom
The United Kingdom comprises England, Wales, Scotland and Northern Ireland. The Channel Islands and the Isle of Man are not part of the United Kingdom.

Population
The estimated resident population of an area includes all people who usually live there, whatever their nationality. Members of HM and US Armed Forces in England and Wales are included on residential basis wherever possible. HM Forces stationed outside England and Wales are not included. Students are taken to be resident at their term time addresses.

Further information on population estimates is available on the National Statistics website at: www.statistics.gov.uk/popest

Live births
For England and Wales, figures relate to the number of births occurring in a period; for Scotland and Northern Ireland, figures relate to births registered in a period. By law, births must be registered within 42 days in England and Wales, within 21 days in Scotland, and within 42 days in Northern Ireland. In England and Wales, where a birth is registered later than the legal time period, and too late to be included in the count for the year of occurrence, it will be included in the count for the following year.

Perinatal mortality
In October 1992 the legal definition of a stillbirth was changed, from a baby born dead after 28 completed weeks of gestation or more, to one born dead after 24 completed weeks of gestation or more.

Period expectation of life
The life tables on which these expectations are based use death rates for the given period to describe mortality levels for each year. Each individual year shown is based on a three-year period, so that for instance 1986 represents 1985–87. More information is available on the National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=14459

Deaths
Figures for England and Wales relate to the number of deaths registered in each year up until 1992, and the number of deaths occuring in a year between 1993 and 2005. From 2006 onwards, all figures relate to the number of deaths registered in the year. All figures for Scotland and Northern Ireland relate to the number of deaths registered in each year.

Coding cause of death
Between 1 January 1984 and 31 December 1992, ONS applied its own interpretation of the International Classification of Diseases (ICD) Section Rule 3 in the coding of deaths where terminal events and other 'modes of dying' such as cardiac arrest, cardiac failure, certain thrombembolic disorders, and unspecified pneumonia and bronchopneumonia, were stated by the certifier to be the underlying cause of death and other major pathology appeared on the certificate. In these cases ONS Rule 3 allowed the terminal event to be considered a direct sequel to the major pathology and that primary condition was selected as the underlying cause of death. Prior to 1984 and between 1 January 1993 and 31 December 2000, such certificates were coded to the terminal event. National Statistics also introduced automated coding of cause of death in 1993, which may also affect comparisons of deaths by cause from 1993. Further details can be found in the annual volumes *Mortality statistics: Cause 1984*, Series DH2 no. 11, and *Mortality statistics: Cause 1993 (revised) and 1994*, Series DH2 no. 21.

From 1 January 2001, under ICD–10, Rule 3 has again been changed – for details see the article in *Health Statistics Quarterly*13. This has resulted in a fall in the death rates from respiratory diseases, notably pneumonia, and consequently slight rises in the rates for other causes eg. strokes. For details of the major changes between ICD–9 and ICD–10, see the articles in *Health Statistics Quarterly* 08, 13 and 14.

Age-standardised mortality rates
Directly age-standardised rates make allowances for changes in the age structure of the population. The age-standardised rate for a particular condition is that which would have occurred if the observed age-specific rates for the condition had applied in a given standard population. Tables 2.2 and 6.3 use the European Standard Population. This is a hypothetical population standard which is the same for both males and females allowing standardised rates to be compared for each sex, and between males and females.

Abortions
Figures relate to numbers occurring in a period.

Calculating quarterly rates
Quarterly rates are calculated using seasonal adjustments which take into account the number of days in the month/year. The denominators used for calculating quarterly rates have been produced from mid-year population estimates and projections.

Marriages and divorces
Marriages are tabulated according to date of solemnisation. Divorces are tabulated according to date of decree absolute. In Scotland a small number of late divorces from previous years are added to the current year. The term 'divorces' includes decrees of nullity. The fact that a marriage or divorce has taken place in England, Wales, Scotland or Northern Ireland does not necessarily mean that either of the parties is resident there.

Civil Partnerships
The Civil Partnership Act 2004 came into force on 5 December 2005 in the UK, the first day couples could give notice of their intention to form a civil partnership. The first day that couples could normally form a partnership was 19 December 2005 in Northern Ireland, 20 December 2005 in Scotland and 21 December 2005 in England and Wales.

Civil partnerships are tabulated according to date of formation and area of occurrence. The fact that a civil partnership has taken place in England, Wales, Scotland or Northern Ireland does not necessarily mean either of the parties is resident there.

Sources
Figures for Scotland and Northern Ireland have been provided by the General Register Office for Scotland and the Northern Ireland Statistics and Research Agency respectively.

Rounding
All figures are rounded independently; constituent parts may not add to totals. Generally numbers and rates per 1,000 population are rounded to one decimal place (for example 123.4); where appropriate, for small figures (below 10.0), two decimal places are given (for example 7.62). Figures which are provisional or estimated are given in less detail (for example 123 or 7.6 respectively) if their reliability does not justify giving the standard amount of detail. Where figures need to be treated with particular caution, an explanation is given as a footnote.

Latest figures
Figures for the latest quarters and years may be provisional and will be updated in future issues when later information becomes available. Where figures are not yet available, cells are left blank.

Table 1.1 Population and vital rates: international

Selected countries

Numbers (thousands)/Rates per thousand

Year	United Kingdom	Austria	Belgium	Bulgaria	Cyprus[1]	Czech Republic	Denmark	Estonia	Finland	France	Germany[2]	Greece[3]	Hungary
Population (thousands)													
1971	55,928	7,501	9,673	8,540	610	9,810	4,963	1,369	4,612	51,251	78,313	8,831	10,370
1976	56,216	7,566	9,818	8,760	498	10,094	5,073	1,435	4,726	52,909	78,337	9,167	10,590
1981	56,357	7,569	9,859	8,891	515	10,293	5,121	1,482	4,800	54,182	78,408	9,729	10,712
1986	56,684	7,588	9,862	8,958	545	10,340	5,120	1,534	4,918	55,547	77,720	9,967	10,631
1991	57,439	7,813	9,979	8,982	587	10,309	5,154	1,566	5,014	57,055	79,984	10,247	10,346
1996	58,164	7,959	10,137	8,363	661[12]	10,315	5,262	1,416	5,125	58,026	81,896	10,709	10,193
2001	59,113	8,043	10,287	7,910	701[12]	10,224	5,359	1,364	5,188	59,322	82,340	10,950	10,188
2002	59,323	8,084	10,333	7,869	710[12]	10,201	5,374	1,359	5,201	59,678	82,482	10,988	10,159
2003	59,557	8,118	10,376	7,824	721[12]	10,202	5,387	1,354	5,213	60,028	82,520	11,024	10,130
2004	59,846	8,175	10,421	7,781	737[12]	10,207	5,401	1,349	5,228	60,381	82,501	11,062	10,107
2005	60,238	8,233	10,479	7,740	758[12]	10,234	5,416	1,346	5,246	60,996	82,464	11,104	10,087
2006	60,587	8,280[p]	10,511[p]	7,680[p]	766[12]	10,280[p]	5,427[p]	1,345	5,270	61,350[p]	82,370[p]	11,150[p]	10,077[p]
2007	60,975	..	..	..	..	..	..	1,340[p]	5,290[p]	..	82,260[p]	..	..
Population changes (per 1,000 per annum)													
1971–76	1.0	1.7	3.0	5.2	–36.7	5.8	4.4	9.6	4.9	6.5	0.1	7.6	4.2
1976–81	0.5	0.1	0.8	3.0	6.8	3.9	1.9	6.6	3.1	4.8	0.2	12.3	2.3
1981–86	1.2	0.5	0.1	1.5	11.7	0.9	0.0	7.0	4.9	5.0	–1.8	4.9	–1.5
1986–91	2.7	5.9	2.4	0.5	15.4	–0.6	1.3	4.2	3.9	5.4	5.8	5.6	–5.4
1991–96	2.5	3.7	3.6	–13.8	25.2	0.1	4.2	–12.4	3.8	3.4	4.8	9.0	–3.0
1996–01	3.3	2.1	2.6	–10.8	12.1	–1.8	3.7	–7.3	2.5	4.5	1.1	4.5	–0.1
2001–02	3.5	5.1	4.5	–5.2	12.8	–2.2	2.8	–3.7	2.5	6.0	1.7	4.4	–2.8
2002–03	3.9	4.2	4.2	–5.7	15.5	0.1	2.4	–3.7	2.3	5.9	0.5	2.4	–2.9
2003–04	4.8	7.0	4.3	–5.5	22.2	0.5	2.6	–3.7	2.9	5.9	–0.2	3.4	–2.3
2004–05	6.6	7.1	5.6	–5.3	28.5	2.6	2.8	–2.2	3.4	10.2	–0.4	3.8	–2.0
2005–06	5.8	5.7[p]	3.1[p]	–7.8[p]	10.6	4.5[p]	2.0[p]	–0.7	4.6	5.8[p]	–1.1[p]	4.1[p]	–1.0[p]
2006–07	6.4	..	..	..	..	..	..	–3.7[p]	3.8[p]	..	–1.3[p]	..	..
Live birth rate (per 1,000 population per annum)													
1971–75	14.1	13.3	13.4	13.2	17.7	17.8	14.6	15.4	13.1	16.0	10.5	15.8	16.1
1976–80	12.5	11.5	12.5	15.1	19.0	17.1	12.0	15.0	13.6	14.1	10.5	15.6	15.8
1981–85	12.9	12.0	12.0	13.7	20.2	13.5	10.2	15.6	13.4	14.2	10.7	13.3	12.3
1986–90	13.7	11.6	12.1	12.7	18.8	12.7	11.5	15.5	12.7	13.8	9.8	10.6	11.8
1991–95	13.2	11.8	12.0	9.8	16.9	11.1	13.1	10.7	12.9	12.7	10.9	9.9	11.7
1996–00	12.0	10.2	11.2	8.3	13.2	8.8	12.6	8.9	11.3	12.7	9.6	10.2	9.8
2001	11.3	9.4	11.1	8.6	11.6	8.9	12.2	9.3	10.8	13.0	8.9	9.3	9.5
2002	11.3	9.7	10.8	8.5	11.1	9.6	11.9	9.6	10.7	12.7	8.7	9.5	9.5
2003	11.7	9.5	10.9	8.6	11.2	9.2	12.0	9.6	10.9	12.7	8.6	9.5	9.3
2004	12.0	9.7	11.1	9.0	11.3	9.6	11.9	10.4	11.0	12.7	8.6	9.6	9.4
2005	12.0	9.5	11.2	9.2	10.9	10.0	11.9	10.7	11.0	12.7	8.3	9.7	9.7
2006	12.4	9.3	11.5	9.6	11.3	10.3	12.0	11.1	11.2	13.0	8.2	10.0	9.9
2007	12.7	9.1	11.4	9.8	10.8	11.1	11.7	11.7	11.1	12.8	8.3	9.8	9.7
Death rate (per 1,000 population per annum)													
1971–75	11.8	12.6	12.1	9.8	9.9	12.4	10.1	11.1	9.5	10.7	12.3	8.6	11.9
1976–80	11.9	12.3	11.6	12.9	10.4	12.5	10.5	12.1	9.3	10.2	12.2	8.8	12.9
1981–85	11.7	12.0	11.4	11.3	10.0	12.8	11.1	12.3	9.3	10.1	12.0	9.0	13.7
1986–90	11.4	11.1	10.8	11.9	10.2	12.4	11.5	11.9	9.8	9.5	11.6	9.3	13.5
1991–95	11.1	10.4	10.4	12.9	9.0	11.6	11.9	13.9	9.8	9.1	10.8	9.5	14.3
1996–00	10.6	9.7	10.3	14.0	7.7	10.8	11.2	13.1	9.6	9.2	10.4	9.7	13.9
2001	10.2	9.3	10.1	14.2	6.9	10.5	10.9	13.6	9.4	8.9	10.1	9.4	13.0
2002	10.2	9.4	10.2	14.3	7.3	10.6	10.9	13.5	9.5	9.2	10.2	9.5	13.1
2003	10.3	9.5	10.4	14.3	7.2	10.9	10.7	13.4	9.4	9.2	10.3	9.6	13.4
2004	9.7	9.1	9.8	14.2	7.1	10.5	10.3	13.2	9.1	8.4	10.0	9.5	13.1
2005	9.7	9.1	9.8	14.6	7.2	10.6	10.2	12.9	9.1	8.6	10.1	9.5	13.5
2006	9.4	8.9	..	14.8	6.7	10.2	10.2	12.9	9.1	..	9.9	9.5	13.1
2007	9.4	8.9	..	..	..	..	10.2	..	9.2	..	10.0	..	13.0

Note:
Estimated population (mid-year), live birth and death rates up to the latest available data, as given in the *United Nations Monthly Bulletin of Statistics* (June 2008), *the United Nations Demographic Yearbook* (May 2008), and the Eurostat website (June 2008).

1 Republic of Cyprus - Greek Cypriot controlled area only
2 Including former GDR throughout.
3 Greece - mid-year population excludes armed forces stationed outside the country but includes alien forces stationed in the area.
4 Malta - including work and resident permit holders and foreigners residing in Malta.
5 Poland - excluding civilian aliens within the country but including civilian nationals temporarily outside the country. Average year data for 2000 and 2001 contain revised data according to the final results of the population census 2002.
6 Portugal - including the Azores and Madeira islands.
7 Spain - including the Balearic and Canary Islands.
8 For 1971 the European Union consisted of the 6 original member countries. This has since been expanded to include: 9 countries (1976–EU15); 10 countries (2004–EU25); 2 countries (2007–EU27). In this table, all totals include the EU27.
9 Including the Indian held part of Jammu and Kashmir, the final status of which has not yet been determined.
10 Japan - excluding diplomatic personnel outside the country and foreign military and civilian personnel and their dependants stationed in the area. Rates are based on births to or deaths of Japanese nationals only.
11 USA - excluding armed forces overseas and civilian citizens absent from the country for extended periods.
12 Indicates population estimates of uncertain reliability.
13 Data refer to 15 April.
14 Figures were updated taking into account the results of the 2002 All Russian Population Census.
15 Mid-year estimates have been adjusted for under-enumeration.
16 For statistical purposes the data for China do not include those for the Hong Kong SAR, Macao SAR and Taiwan province of China. Data for the period 1996 to 2000 have been adjusted on the basis of the Population Census of 2000. Data from 2001 to 2004 have been estimated on the basis of the annual national sample surveys of Population Changes. Estimate of uncertain reliability. Death rates for 1999–2003 and birth rates for 2000–2003 were obtained by the Sample Survey of Population Change 2003 in China.
17 Rate is for 1990–1995.
p provisional.

Table 1.1 continued **Population and vital rates: international**

Selected countries

Numbers (thousands)/Rates per thousand

Year	Irish Republic	Italy	Latvia	Lithuania	Luxem–bourg	Malta[4]	Nether–lands	Poland[5]	Portugal[6]	Romania	Slovakia	Slovenia	Spain[7]	Sweden
Population (thousands)														
1971	2,992	54,073	2,366	3,160	342	330	13,194	32,800	8,644	20,470	4,540	1,732	34,216	8,098
1976	3,238	55,718	2,465	3,315	361	330	13,774	34,360	9,356	21,450	4,764	1,809	36,118	8,222
1981	3,443	56,502	2,515	3,422	365	322	14,247	35,902	9,851	22,353	4,996	1,910	37,741	8,320
1986	3,543	56,596	2,588	3,560	368	344	14,572	37,456	10,011	22,823	5,179	1,975	38,536	8,370
1991	3,526	56,751	2,662	3,742	387	358	15,070	38,245	9,871	23,185	5,283	2,002	38,920	8,617
1996	3,626[13]	56,860	2,457	3,602	414	380	15,530	38,618	10,058	22,608	5,374	1,991	39,479	8,841
2001	3,839[13]	56,978	2,355	3,481	442	393	16,046	38,251	10,293	22,408	5,380	1,992	40,721	8,896
2002	3,917[13]	57,157	2,339	3,469	446	396	16,149	38,232	10,368	21,795	5,379	1,996	41,314	8,925
2003	3,996[13]	57,605	2,325	3,454	450	399	16,225	38,195	10,441	21,734	5,379	1,997	42,005	8,958
2004	4,044[13]	58,175	2,313	3,436	453	401	16,282	38,180	10,502	21,673	5,382	1,997	42,692	8,994
2005	4,131[13]	58,607	2,301	3,414	457	404	16,320	38,161	10,549	21,624	5,387	2,001	43,398	9,030
2006	4,230[13]	58,940	2,295	3,390[P]	470[P]	410[P]	16,350[P]	38,130	10,580	21,580[P]	5,400[P]	2,010	44,100	9,090[P]
2007	4,340[P]	59,420[P]	2,270[P]	3,370[P]	..	410[P]	16,370[P]	..	..	21,540[P]	5,390[P]	2,020[P]	44,850[P]	9,140[P]
Population changes (per 1,000 per annum)														
1971–76	16.4	6.1	8.4	9.8	10.7	0.0	8.8	9.5	16.5	9.6	9.9	8.9	11.1	3.1
1976–81	12.7	2.8	4.1	6.5	2.5	–4.8	6.9	9.0	10.6	8.4	9.7	11.2	9.0	2.4
1981–86	5.8	0.3	5.8	8.1	1.8	13.7	4.6	8.7	3.2	4.2	7.3	6.8	4.2	1.2
1986–91	–1.0	0.5	5.7	10.2	10.2	8.1	6.8	4.2	–2.8	3.2	4.0	2.7	2.0	5.9
1991–96	4.3	0.4	–12.8	–1.7	13.9	8.4	6.1	2.0	3.8	–5.0	3.4	–1.1	2.9	5.1
1996–01	11.7	0.4	–8.3	–6.7	13.5	6.8	6.6	–1.9	4.7	–1.8	0.2	0.1	6.3	1.2
2001–02	20.3	3.1	–6.8	–3.4	9.0	7.6	6.4	–0.5	7.3	–27.4	–0.2	2.0	14.6	3.3
2002–03	20.2	7.8	–6.0	–4.3	9.0	7.6	4.7	–1.0	7.0	–2.8	0.0	0.5	16.7	3.7
2003–04	12.0	9.9	–5.2	–5.2	6.7	5.0	3.5	–0.4	5.8	–2.8	0.6	0.0	16.4	4.0
2004–05	21.5	7.4	–5.2	–6.4	8.8	7.5	2.3	–0.5	4.5	–2.3	0.9	2.0	16.5	4.0
2005–06	24.0	5.7	–2.6	–7.0[P]	28.4[P]	14.9[P]	1.8[P]	–0.8	2.9	–2.0[P]	2.4[P]	4.5	16.2	6.6[P]
2006–07	26.0[P]	8.1[P]	–10.9[P]	–5.9[P]	..	0.0[P]	1.2[P]	..	..	–1.9[P]	–1.9[P]	5.0[P]	17.0[P]	5.5[P]
Live birth rate (per 1,000 population per annum)														
1971–75	22.2	16.0	14.4	16.4	11.6	17.5	14.9	17.9	20.3	19.3	19.7	16.4	19.2	13.5
1976–80	21.3	12.6	13.9	15.4	11.2	17.0	12.6	19.3	17.9	18.9	20.3	16.3	17.1	11.6
1981–85	19.2	10.6	15.2	16.0	11.6	15.3	12.2	19.0	14.5	15.6	18.0	14.2	12.8	11.3
1986–90	15.8	9.8	15.3	15.8	12.2	16.0	12.8	15.5	11.9	15.8	15.8	12.3	10.8	13.2
1991–95	14.0	9.6	10.8	13.1	13.3	14.0	12.8	12.9	11.4	11.1	13.3	10.0	9.8	13.3
1996–00	14.2	9.2	8.0	10.4	13.1	12.0	12.6	10.4	11.3	10.4	10.7	9.1	9.5	10.2
2001	15.1	9.2	8.3	9.1	12.4	10.0	12.6	9.6	11.0	9.8	9.5	8.8	10.0	10.3
2002	15.5	9.4	8.6	8.7	12.0	9.6	12.5	9.3	11.0	9.7	9.5	8.8	10.2	10.7
2003	15.4	9.4	9.0	8.9	11.8	10.1	12.3	9.2	10.8	9.8	9.6	8.7	10.5	11.1
2004	15.3	9.7	8.8	8.9	11.8	9.7	11.9	9.3	10.4	10.0	10.0	9.0	10.6	11.2
2005	14.8	9.5	9.4	9.0	11.8	9.6	11.5	9.6	10.4	10.2	9.3	9.1	10.7	11.2
2006	15.2	9.5	9.7	9.2	11.7	9.6	11.3	9.8	10.0	10.1	10.0	9.4	10.9	11.7
2007	16.2	9.5	10.1	9.5	11.4	9.5	11.0	10.2	10.0	9.9	10.1	9.7	10.8	11.7
Death rate (per 1,000 population per annum)														
1971–75	11.0	9.8	11.6	9.0	12.2	9.0	8.3	8.4	11.0	9.4	9.4	10.0	8.5	10.5
1976–80	10.2	9.7	12.6	10.1	11.5	9.0	8.1	9.2	10.1	9.8	9.8	9.8	8.0	10.9
1981–85	9.4	9.5	12.8	10.6	11.2	8.2	8.3	9.6	9.6	10.3	10.1	10.3	7.7	11.0
1986–90	9.1	9.4	12.4	10.3	10.5	7.4	8.5	10.0	9.6	10.8	10.1	9.6	8.2	11.1
1991–95	8.8	9.7	14.8	12.0	9.8	7.6	8.8	10.2	10.4	11.5	9.9	9.7	8.7	10.9
1996–00	8.5	9.8	13.9	11.5	9.0	7.7	8.8	9.8	10.5	12.0	9.7	9.5	9.1	10.6
2001	7.9	9.6	14.0	11.6	8.4	7.6	8.7	9.5	10.2	11.6	9.7	9.3	8.9	10.5
2002	7.5	9.8	13.9	11.8	8.4	7.8	8.8	9.4	10.2	12.4	9.6	9.4	8.9	10.6
2003	7.2	10.2	13.9	11.9	9.0	7.7	8.7	9.6	10.4	12.3	9.7	9.7	9.2	10.4
2004	7.0	9.4	13.9	12.0	7.6	7.2	8.4	9.5	9.7	11.9	9.6	9.3	8.7	10.1
2005	6.6	9.7	14.2	12.8	8.0	7.8	8.4	9.7	10.2	12.1	9.9	9.4	8.9	10.2
2006	6.5	9.5	14.5	13.2	8.0	..	8.3	9.7	9.7	11.9	9.9	9.1	8.4	10.0
2007	..	..	14.5	13.5	..	..	..	..	..	11.7	9.9	..	..	10.0

See notes on first page of table.

Table 1.1 continued Population and vital rates: international

Selected countries

Numbers (thousands)/Rates per thousand

Year	EU[8]	Russian Federation	Australia	Canada	New Zealand	China	India[9]	Japan[10]	USA[11]	Year
Population (thousands)										
1971	438,728	130,934	13,067	22,026	2,899	852,290[16]	551,311	105,145	207,661	1971
1976	450,468	135,027	14,033	23,517	3,163	937,170[16]	617,248	113,094	218,035	1976
1981	459,807	139,225	14,923	24,900	3,195	1,008,460[16]	675,185	117,902	229,958	1981
1986	465,336	144,154	16,018	26,204	3,317	1,086,733[16]	767,199	121,672	240,680	1986
1991	473,094	148,245	17,284	28,031	3,477	1,170,100[16]	851,897	123,964	252,639	1991
1996	478,084	148,160[14]	18,311[15]	29,611[15]	3,732	1,217,550[16]	942,157[12]	125,757	269,394	1996
2001	482,464	145,976[14]	19,413[15]	31,021[15]	3,880	1,271,850[16]	1,035,066[12]	127,130	285,108	2001
2002	483,643	145,306[14]	19,641[15]	31,373[15]	3,939	1,280,400[16]	1,050,640[12]	127,400	287,985	2002
2003	485,617	144,566[14]	19,873[15]	31,669[15]	4,009	1,288,400[16]	1,068,214[12]	127,650	290,850	2003
2004	487,720	143,821[14]	20,111[15]	31,974[15]	4,061	1,296,075[16]	1,085,600[12]	127,670	293,623	2004
2005	490,125	143,150[14]	20,409[15]	32,312[15]	4,099	1,303,720[16]	1,101,000[12]	127,773	296,410	2005
2006	492,068[P]	142,490[14]	20,700[15]	32,650[15]	4,180	1,311,020[16]	1,117,730[12]	127,760	299,400	2006
2007	..	..	21,020[15,P]	32,980[15,P]	4,230[P]	..	1,134,000[12]	127,770	..	2007
Population changes (per 1,000 per annum)										
1971–76	5.4	6.3	14.8	13.5	18.2	19.9	23.9	15.1	10.0	1971–76
1976–81	4.1	6.2	12.7	11.8	2.0	15.2	18.8	8.5	10.9	1976–81
1981–86	2.4	7.1	14.7	10.5	7.6	15.5	27.3	6.4	9.3	1981–86
1986–91	3.3	5.7	15.8	13.9	9.6	15.3	22.1	3.8	9.9	1986–91
1991–96	2.1	–1.7	11.9	11.3	14.7	10.3	21.1	2.9	12.1	1991–96
1996–01	1.8	–2.9	12.0	9.5	7.9	8.9	19.7	2.2	11.7	1996–01
2001–02	2.4	–4.6	11.7	11.3	15.2	6.7	15.0	2.1	10.1	2001–02
2002–03	4.1	–5.1	11.8	9.4	17.8	6.2	16.7	2.0	9.9	2002–03
2003–04	4.3	–5.2	12.0	9.6	13.0	6.0	16.3	0.2	9.5	2003–04
2004–05	4.9	–4.7	14.8	10.6	9.4	5.9	14.2	0.8	9.5	2004–05
2005–06	3.8[P]	–4.6	14.3	10.5	19.8	5.6	15.2	–0.1	10.1	2005–06
2006–07	..	..	15.5[P]	10.1[P]	12.0[P]	..	14.6	0.1	..	2006–07
Live birth rate (per 1,000 population per annum)										
1971–75	..	..	18.8	15.9	20.4	27.2	35.6	18.6	15.3	1971–75
1976–80	..	..	15.7	15.5	16.8	18.6	33.4	14.9	15.2	1976–80
1981–85	..	..	15.6	15.1	15.8	19.2	..	12.6	15.7	1981–85
1986–90	..	..	15.1	14.8	17.1	..	..	10.6	16.0	1986–90
1991–95	11.4	10.2	14.7	13.6	16.9	18.5[17]	..	9.7	13.1	1991–95
1996–00	10.6	8.6	13.4	11.4	14.9	..	..	9.5	14.3	1996–00
2001	10.1	9.0	12.7	10.8	14.4	13.4[16]	25.4	9.2	14.1	2001
2002	10.3	9.6	12.8	10.5	13.7	12.9[16]	25.0	9.1	14.0	2002
2003	10.3	10.2	12.6	10.6	14.0	12.4[16]	24.8	8.8	14.1	2003
2004	10.4	10.5	12.7	10.5	14.3	12.3[16]	24.1	8.7	14.0	2004
2005	10.4	10.2	12.9	10.6	14.1	12.4[16]	23.8	8.3	14.0	2005
2006	10.6	10.4	12.9	..	14.1	..	..	8.6	..	2006
2007	10.6	10.9	..	..	15.2	..	..	..	..	2007
Death rate (per 1,000 population per annum)										
1971–75	..	..	8.2	7.4	8.4	7.3	15.5	6.4	9.1	1971–75
1976–80	..	..	7.6	7.2	8.2	6.6	13.8	6.1	8.7	1976–80
1981–85	..	..	7.3	7.0	8.1	6.7	..	6.1	8.6	1981–85
1986–90	..	..	7.2	7.3	8.2	..	..	6.4	8.7	1986–90
1991–95	10.4	13.7	7.0	7.8	7.8	..	..	7.0	8.7	1991–95
1996–00	10.2	14.3	6.9	7.2	7.2	..	..	7.4	8.5	1996–00
2001	9.9	15.4	6.6	7.1	7.2	6.4[16]	8.4	7.6	8.5	2001
2002	9.9	16.1	6.8	7.1	7.1	6.4[16]	8.1	7.7	8.5	2002
2003	10.1	16.4	6.7	7.1	7.0	6.4[16]	8.0	8.0	8.4	2003
2004	9.7	16.0	6.6	7.1	7.0	6.4[16]	7.5	8.1	8.2	2004
2005	9.8	15.2	6.4	7.2	6.6	6.5[16]	7.6	8.5	..	2005
2006	..	15.0	6.5	..	6.7	..	..	8.5	..	2006
2007	..	..	..	..	6.8	..	..	..	..	2007

See notes on first page of table.

Table 1.2 Population: national

Constituent countries of the United Kingdom

Numbers (thousands) and percentage age distribution

Mid-year	United Kingdom	Great Britain	England and Wales	England	Wales	Scotland	Northern Ireland
Estimates							
1971	55,928	54,388	49,152	46,412	2,740	5,236	1,540
1976	56,216	54,693	49,459	46,660	2,799	5,233	1,524
1981	56,357	54,815	49,634	46,821	2,813	5,180	1,543
1986	56,684	55,110	49,999	47,188	2,811	5,112	1,574
1991	57,439	55,831	50,748	47,875	2,873	5,083	1,607
1993	57,714	56,078	50,986	48,102	2,884	5,092	1,636
1994	57,862	56,218	51,116	48,229	2,887	5,102	1,644
1995	58,025	56,376	51,272	48,383	2,889	5,104	1,649
1996	58,164	56,503	51,410	48,519	2,891	5,092	1,662
1997	58,314	56,643	51,560	48,665	2,895	5,083	1,671
1998	58,475	56,797	51,720	48,821	2,900	5,077	1,678
1999	58,684	57,005	51,933	49,033	2,901	5,072	1,679
2000	58,886	57,203	52,140	49,233	2,907	5,063	1,683
2001	59,113	57,424	52,360	49,450	2,910	5,064	1,689
2002	59,323	57,627	52,572	49,652	2,920	5,055	1,697
2003	59,557	57,855	52,797	49,866	2,931	5,057	1,703
2004	59,846	58,136	53,057	50,111	2,946	5,078	1,710
2005	60,238	58,514	53,419	50,466	2,954	5,095	1,724
2006	60,587	58,846	53,729	50,763	2,966	5,117	1,742
2007	60,975	59,216	54,072	51,092	2,980	5,144	1,759
2007 by age group **(percentages)**							
0–4	*5.9*	*5.9*	*5.9*	*5.9*	*5.5*	*5.3*	*6.6*
5–15	*13.0*	*12.9*	*13.0*	*13.0*	*13.2*	*12.5*	*15.1*
16–44	*40.1*	*40.1*	*40.2*	*40.3*	*37.4*	*39.3*	*41.2*
45–64M/59F	*22.0*	*22.1*	*21.9*	*21.9*	*22.9*	*23.4*	*20.7*
65M/60F–74	*11.2*	*11.3*	*11.2*	*11.1*	*12.5*	*11.9*	*10.1*
75 and over	*7.7*	*7.8*	*7.8*	*7.8*	*8.5*	*7.5*	*6.3*
Projections[1]							
2006	60,587	58,846	53,729	50,763	2,966	5,117	1,742
2011	62,761	60,950	55,744	52,706	3,038	5,206	1,812
2016	64,975	63,107	57,837	54,724	3,113	5,270	1,868
2021	67,191	65,269	59,943	56,757	3,186	5,326	1,922
2026	69,260	67,294	61,931	58,682	3,248	5,363	1,966
2031	71,100	69,101	63,727	60,432	3,296	5,374	1,999
2031 by age group **(percentages)**							
0–4	*5.5*	*5.5*	*5.6*	*5.6*	*5.1*	*4.7*	*5.7*
5–15	*12.4*	*12.4*	*12.5*	*12.5*	*12.1*	*11.2*	*13.4*
16–44	*36.4*	*36.4*	*36.6*	*36.8*	*33.7*	*34.3*	*35.5*
45–64[2]	*23.4*	*23.4*	*23.3*	*23.3*	*23.5*	*24.4*	*23.9*
65–74[2]	*10.6*	*10.6*	*10.5*	*10.4*	*12.0*	*12.4*	*10.7*
75 and over	*11.6*	*11.6*	*11.5*	*11.4*	*13.7*	*12.9*	*10.9*

Note: Figures may not add exactly due to rounding.

1 National projections based on mid-2006 population estimates.

2 Between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes. Between 2024 and 2026, state pension age will increase from 65 years to 66 years for both men and women.

Table 1.3 Population: subnational

Government Office Regions of England

Numbers (thousands) and percentage age distribution

Mid-year	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Estimates									
1971	2,679	7,108	4,902	3,652	5,146	4,454	7,529	6,830	4,112
1976	2,671	7,043	4,924	3,774	5,178	4,672	7,089	7,029	4,280
1981	2,636	6,940	4,918	3,853	5,187	4,854	6,806	7,245	4,381
1986	2,594	6,833	4,884	3,908	5,180	4,999	6,774	7,468	4,548
1991	2,587	6,843	4,936	4,011	5,230	5,121	6,829	7,629	4,688
1993	2,594	6,847	4,954	4,056	5,246	5,154	6,844	7,673	4,734
1994	2,589	6,839	4,960	4,072	5,249	5,178	6,874	7,712	4,757
1995	2,583	6,828	4,961	4,092	5,257	5,206	6,913	7,763	4,782
1996	2,576	6,810	4,961	4,108	5,263	5,233	6,974	7,800	4,793
1997	2,568	6,794	4,958	4,120	5,262	5,267	7,015	7,853	4,827
1998	2,561	6,792	4,958	4,133	5,271	5,302	7,065	7,889	4,849
1999	2,550	6,773	4,956	4,152	5,272	5,339	7,154	7,955	4,881
2000	2,543	6,774	4,959	4,168	5,270	5,375	7,237	7,991	4,917
2001	2,540	6,773	4,977	4,190	5,281	5,400	7,322	8,023	4,943
2002	2,541	6,778	5,002	4,222	5,295	5,433	7,362	8,047	4,973
2003	2,541	6,800	5,028	4,254	5,312	5,475	7,364	8,087	5,005
2004	2,542	6,820	5,064	4,291	5,327	5,511	7,389	8,125	5,042
2005	2,550	6,840	5,108	4,328	5,351	5,563	7,456	8,185	5,087
2006	2,556	6,853	5,142	4,364	5,367	5,607	7,512	8,238	5,124
2007	2,564	6,864	5,177	4,400	5,382	5,661	7,557	8,309	5,178
2007 by age group **(percentages)**									
0–4	*5.5*	*5.9*	*5.8*	*5.6*	*6.1*	*5.9*	*7.0*	*5.8*	*5.2*
5–15	*12.6*	*13.2*	*13.0*	*12.9*	*13.4*	*13.2*	*12.2*	*13.2*	*12.5*
16–44	*38.9*	*39.4*	*40.3*	*39.4*	*39.1*	*38.6*	*48.3*	*38.9*	*37.1*
45–64M/59F	*23.2*	*22.3*	*22.0*	*22.7*	*22.0*	*22.4*	*18.6*	*22.5*	*22.9*
65M/60F–74	*11.9*	*11.5*	*11.3*	*11.6*	*11.6*	*11.7*	*8.1*	*11.3*	*12.6*
75 and over	*8.0*	*7.7*	*7.6*	*7.8*	*7.9*	*8.2*	*5.7*	*8.3*	*9.5*
Projections[1]									
2006	2,556	6,853	5,142	4,364	5,367	5,607	7,512	8,238	5,124
2011	2,594	7,014	5,377	4,591	5,506	5,890	7,817	8,550	5,368
2016	2,638	7,193	5,621	4,825	5,662	6,179	8,114	8,871	5,620
2021	2,685	7,377	5,866	5,060	5,824	6,471	8,390	9,202	5,882
2026	2,730	7,546	6,101	5,286	5,977	6,747	8,633	9,523	6,139
2031	2,769	7,696	6,319	5,491	6,114	6,997	8,858	9,814	6,374
2031 by age group **(percentages)**									
0–4	*5.2*	*5.5*	*5.6*	*5.3*	*5.9*	*5.5*	*6.7*	*5.5*	*5.0*
5–15	*12.1*	*12.6*	*12.5*	*12.3*	*13.2*	*12.6*	*12.6*	*12.7*	*11.8*
16–44	*35.6*	*36.3*	*37.7*	*35.6*	*35.7*	*34.9*	*43.7*	*35.1*	*33.9*
45–64[2]	*23.0*	*23.2*	*23.0*	*23.8*	*22.8*	*23.7*	*22.9*	*23.6*	*23.7*
65–74[2]	*11.7*	*10.9*	*10.2*	*11.0*	*10.5*	*10.9*	*7.4*	*10.8*	*11.8*
75 and over	*12.4*	*11.5*	*10.9*	*12.0*	*11.9*	*12.4*	*6.7*	*12.4*	*13.9*

Note: Figures may not add exactly due to rounding.

1 These projections are based on the 2006 population estimates and are consistent with the 2006-based national projections produced by the Office for National Statistics.

2 Between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes.
Between 2024 and 2026, state pension age will increase from 65 years to 66 years for both men and women.

Table 1.4 Population: age and sex

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64M/59F[1]	65M/60F[1] and over
United Kingdom																
Persons																
1981	56,357	730	2,726	8,147	9,019	8,010	6,774	9,540	2,935	5,195	2,677	..	..	12,543	33,780	10,035
1986	56,684	748	2,886	7,143	9,200	8,007	7,711	9,212	3,069	5,020	2,971	716	..	11,645	34,725	10,313
1991	57,439	790	3,077	7,141	8,168	8,898	7,918	9,500	2,888	5,067	3,119	626	248	11,685	35,197	10,557
1996	58,164	719	3,019	7,544	7,231	9,131	7,958	10,553	2,785	5,066	3,129	711	317	12,018	35,498	10,649
2000	58,886	682	2,869	7,652	7,139	8,646	8,678	11,011	2,900	4,940	3,249	755	364	11,959	36,138	10,788
2001	59,113	663	2,819	7,624	7,261	8,475	8,846	11,168	2,884	4,947	3,296	753	377	11,863	36,406	10,845
2002	59,323	661	2,753	7,603	7,400	8,264	9,004	11,307	2,892	4,967	3,344	738	388	11,785	36,622	10,916
2003	59,557	680	2,706	7,546	7,573	8,084	9,105	11,412	2,949	5,001	3,398	706	399	11,720	36,826	11,012
2004	59,846	705	2,686	7,475	7,739	7,954	9,185	11,507	3,027	5,028	3,431	702	409	11,645	37,083	11,117
2005	60,238	716	2,713	7,373	7,886	7,935	9,245	11,616	3,114	5,046	3,420	755	419	11,589	37,418	11,232
2006	60,587	732	2,765	7,241	8,020	7,896	9,262	11,744	3,240	5,029	3,416	820	423	11,537	37,707	11,344
2007	60,975	756	2,837	7,128	8,156	7,859	9,248	11,728	3,483	5,058	3,424	873	425	11,509	37,904	11,562
Males																
1981	27,412	374	1,400	4,184	4,596	4,035	3,409	4,711	1,376	2,264	922	..	..	6,439	17,646	3,327
1986	27,542	384	1,478	3,664	4,663	4,022	3,864	4,572	1,463	2,206	1,060	166	..	5,968	18,142	3,432
1991	27,909	403	1,572	3,655	4,146	4,432	3,949	4,732	1,390	2,272	1,146	166	46	5,976	18,303	3,630
1996	28,287	369	1,547	3,857	3,652	4,540	3,954	5,244	1,360	2,311	1,187	201	65	6,148	18,375	3,764
2000	28,690	350	1,469	3,920	3,606	4,292	4,298	5,457	1,420	2,294	1,278	225	81	6,128	18,685	3,878
2001	28,832	338	1,445	3,906	3,672	4,215	4,382	5,534	1,412	2,308	1,308	227	85	6,077	18,827	3,928
2002	28,964	338	1,408	3,897	3,758	4,114	4,462	5,594	1,414	2,325	1,338	226	89	6,037	18,949	3,978
2003	29,109	349	1,384	3,868	3,855	4,024	4,514	5,646	1,440	2,347	1,369	219	94	6,006	19,075	4,028
2004	29,278	362	1,376	3,832	3,953	3,960	4,546	5,691	1,479	2,365	1,392	223	98	5,971	19,229	4,078
2005	29,497	367	1,389	3,781	4,030	3,952	4,581	5,745	1,522	2,380	1,400	247	103	5,941	19,426	4,130
2006	29,694	374	1,416	3,709	4,108	3,940	4,586	5,804	1,584	2,379	1,413	273	106	5,912	19,611	4,171
2007	29,916	387	1,453	3,649	4,193	3,936	4,578	5,786	1,701	2,398	1,432	295	108	5,895	19,789	4,233
Females																
1981	28,946	356	1,327	3,963	4,423	3,975	3,365	4,829	1,559	2,931	1,756	..	..	6,104	16,134	6,708
1986	29,142	364	1,408	3,480	4,538	3,985	3,847	4,639	1,606	2,814	1,911	550	..	5,678	16,583	6,881
1991	29,530	387	1,505	3,487	4,021	4,466	3,968	4,769	1,498	2,795	1,972	460	202	5,709	16,894	6,927
1996	29,877	350	1,472	3,687	3,579	4,591	4,005	5,309	1,426	2,755	1,942	509	252	5,870	17,123	6,885
2000	30,196	333	1,399	3,732	3,533	4,353	4,380	5,554	1,481	2,646	1,971	530	283	5,832	17,453	6,911
2001	30,281	324	1,375	3,718	3,589	4,260	4,465	5,634	1,473	2,640	1,987	526	292	5,786	17,579	6,917
2002	30,359	323	1,346	3,706	3,642	4,150	4,542	5,713	1,478	2,642	2,006	513	299	5,748	17,673	6,938
2003	30,449	331	1,322	3,678	3,718	4,060	4,590	5,766	1,509	2,654	2,029	487	305	5,714	17,751	6,984
2004	30,568	343	1,310	3,642	3,785	3,993	4,639	5,816	1,548	2,662	2,040	479	310	5,674	17,854	7,039
2005	30,741	349	1,324	3,592	3,856	3,983	4,663	5,871	1,591	2,666	2,020	509	316	5,647	17,992	7,102
2006	30,893	357	1,349	3,532	3,912	3,956	4,675	5,940	1,656	2,650	2,002	547	317	5,625	18,096	7,172
2007	31,059	368	1,383	3,480	3,963	3,924	4,670	5,942	1,782	2,660	1,992	578	317	5,615	18,116	7,329
England and Wales																
Persons																
1981	49,634	634	2,372	7,085	7,873	7,086	5,996	8,433	2,607	4,619	2,388	383	157	10,910	29,796	8,928
1986	49,999	654	2,522	6,226	8,061	7,052	6,856	8,136	2,725	4,470	2,655	461	182	10,161	30,647	9,190
1991	50,748	698	2,713	6,248	7,165	7,862	7,022	8,407	2,553	4,506	2,790	561	223	10,247	31,100	9,400
1996	51,410	637	2,668	6,636	6,336	8,076	7,017	9,363	2,457	4,496	2,801	639	285	10,584	31,353	9,474
2000	52,140	607	2,544	6,757	6,275	7,682	7,661	9,764	2,564	4,372	2,907	680	328	10,572	31,977	9,591
2001	52,360	589	2,502	6,740	6,387	7,536	7,816	9,898	2,549	4,377	2,947	677	340	10,495	32,226	9,639
2002	52,572	589	2,445	6,728	6,518	7,357	7,964	10,018	2,555	4,394	2,989	664	351	10,437	32,435	9,700
2003	52,797	607	2,404	6,682	6,679	7,203	8,058	10,104	2,606	4,422	3,037	634	360	10,388	32,626	9,783
2004	53,057	629	2,390	6,618	6,836	7,090	8,133	10,177	2,675	4,445	3,063	632	370	10,326	32,856	9,875
2005	53,419	639	2,415	6,528	6,974	7,078	8,194	10,264	2,757	4,461	3,052	680	379	10,278	33,164	9,977
2006	53,729	653	2,462	6,412	7,095	7,040	8,213	10,369	2,874	4,444	3,045	740	382	10,235	33,417	10,077
2007	54,072	675	2,528	6,314	7,219	6,999	8,209	10,347	3,092	4,468	3,049	787	385	10,212	33,588	10,271
Males																
1981	24,160	324	1,218	3,639	4,011	3,569	3,024	4,178	1,227	2,020	825	94	32	5,601	15,589	2,970
1986	24,311	335	1,292	3,194	4,083	3,542	3,438	4,053	1,302	1,972	951	115	35	5,208	16,031	3,072
1991	24,681	356	1,385	3,198	3,638	3,920	3,504	4,199	1,234	2,027	1,029	150	42	5,240	16,193	3,248
1996	25,030	327	1,368	3,393	3,202	4,020	3,489	4,659	1,205	2,059	1,067	182	59	5,416	16,247	3,367
2000	25,438	311	1,303	3,462	3,172	3,823	3,802	4,842	1,259	2,040	1,148	204	73	5,416	16,556	3,466
2001	25,574	301	1,281	3,453	3,231	3,758	3,881	4,907	1,252	2,052	1,175	206	77	5,376	16,688	3,510
2002	25,704	301	1,249	3,448	3,311	3,672	3,957	4,958	1,253	2,067	1,202	204	81	5,346	16,804	3,554
2003	25,841	312	1,230	3,425	3,399	3,594	4,007	5,002	1,276	2,085	1,229	198	85	5,324	16,920	3,597
2004	25,995	323	1,225	3,394	3,493	3,538	4,036	5,037	1,310	2,100	1,248	202	89	5,295	17,060	3,640
2005	26,197	327	1,237	3,348	3,565	3,530	4,073	5,080	1,351	2,113	1,256	224	94	5,270	17,241	3,685
2006	26,371	334	1,261	3,284	3,636	3,517	4,080	5,130	1,407	2,111	1,267	248	96	5,245	17,405	3,722
2007	26,569	346	1,295	3,231	3,715	3,508	4,076	5,110	1,511	2,127	1,283	268	99	5,230	17,563	3,775
Females																
1981	25,474	310	1,154	3,446	3,863	3,517	2,972	4,255	1,380	2,599	1,564	289	126	5,309	14,207	5,958
1986	25,687	319	1,231	3,032	3,978	3,509	3,418	4,083	1,422	2,498	1,704	346	148	4,953	14,616	6,118
1991	26,067	342	1,328	3,050	3,527	3,943	3,517	4,208	1,319	2,479	1,761	411	181	5,007	14,908	6,152
1996	26,381	310	1,300	3,243	3,134	4,056	3,528	4,704	1,252	2,437	1,734	457	227	5,168	15,106	6,107
2000	26,702	296	1,241	3,296	3,103	3,859	3,859	4,923	1,304	2,332	1,758	476	255	5,155	15,421	6,126
2001	26,786	288	1,220	3,287	3,156	3,778	3,935	4,992	1,297	2,326	1,771	471	263	5,119	15,538	6,129
2002	26,868	287	1,195	3,280	3,207	3,685	4,007	5,060	1,302	2,328	1,787	460	270	5,091	15,631	6,146
2003	26,956	295	1,175	3,256	3,280	3,610	4,051	5,103	1,329	2,338	1,807	436	275	5,064	15,705	6,186
2004	27,062	306	1,165	3,224	3,342	3,552	4,097	5,141	1,365	2,345	1,815	430	280	5,031	15,796	6,235
2005	27,223	312	1,178	3,180	3,409	3,548	4,121	5,183	1,406	2,348	1,796	456	285	5,008	15,922	6,292
2006	27,358	319	1,201	3,127	3,458	3,523	4,134	5,239	1,466	2,333	1,778	492	286	4,990	16,012	6,355
2007	27,503	329	1,233	3,082	3,505	3,490	4,132	5,237	1,581	2,342	1,767	520	286	4,982	16,026	6,496

Note: Figures may not add exactly due to rounding.

1 Between 2010 and 2020, state pension age will change from 65 years for men and 60 years for women to 65 years for both sexes.

Tel no. for all enquiries relating to population estimates:- 01329 444661

Table 1.4 continued **Population: age and sex**

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64M/59F[1]	65M/65F[1] and over
England																
Persons																
1981	46,821	598	2,235	6,678	7,440	6,703	5,663	7,948	2,449	4,347	2,249	362	149	10,285	28,133	8,403
1986	47,188	618	2,380	5,869	7,623	6,682	6,478	7,672	2,559	4,199	2,501	435	172	9,583	28,962	8,643
1991	47,875	660	2,560	5,885	6,772	7,460	6,633	7,920	2,399	4,222	2,626	529	210	9,658	29,390	8,827
1996	48,519	603	2,523	6,255	5,985	7,667	6,638	8,822	2,310	4,217	2,631	602	269	9,985	29,639	8,895
2000	49,233	575	2,406	6,375	5,923	7,304	7,257	9,199	2,411	4,107	2,727	641	309	9,980	30,243	9,010
2001	49,450	558	2,366	6,359	6,032	7,171	7,407	9,327	2,395	4,113	2,764	638	321	9,908	30,487	9,055
2002	49,652	559	2,313	6,348	6,153	7,003	7,550	9,439	2,399	4,129	2,803	625	331	9,855	30,686	9,111
2003	49,866	576	2,275	6,305	6,304	6,859	7,641	9,522	2,445	4,155	2,850	596	340	9,812	30,867	9,188
2004	50,111	597	2,262	6,245	6,450	6,751	7,712	9,591	2,509	4,175	2,875	593	349	9,755	31,083	9,273
2005	50,466	606	2,289	6,161	6,583	6,742	7,772	9,675	2,586	4,189	2,865	638	357	9,713	31,384	9,370
2006	50,763	620	2,335	6,051	6,696	6,708	7,793	9,777	2,697	4,171	2,860	695	360	9,674	31,627	9,462
2007	51,092	641	2,398	5,961	6,812	6,669	7,791	9,758	2,904	4,192	2,865	739	363	9,656	31,792	9,645
Males																
1981	22,795	306	1,147	3,430	3,790	3,377	2,856	3,938	1,154	1,902	777	89	30	5,280	14,717	2,798
1986	22,949	317	1,219	3,010	3,862	3,357	3,249	3,822	1,224	1,853	897	108	33	4,911	15,147	2,891
1991	23,291	336	1,307	3,011	3,439	3,721	3,311	3,957	1,159	1,900	970	141	39	4,938	15,302	3,050
1996	23,629	309	1,294	3,198	3,023	3,818	3,302	4,390	1,133	1,932	1,003	172	55	5,110	15,358	3,161
2000	24,030	294	1,232	3,266	2,995	3,638	3,604	4,562	1,184	1,917	1,078	192	69	5,113	15,661	3,256
2001	24,166	285	1,212	3,257	3,053	3,580	3,681	4,624	1,176	1,928	1,103	194	73	5,075	15,793	3,298
2002	24,290	286	1,182	3,253	3,127	3,500	3,755	4,673	1,176	1,942	1,128	193	77	5,047	15,904	3,339
2003	24,419	296	1,163	3,232	3,209	3,425	3,803	4,715	1,197	1,958	1,154	186	80	5,028	16,012	3,379
2004	24,563	306	1,159	3,202	3,297	3,371	3,831	4,748	1,228	1,972	1,172	190	84	5,001	16,143	3,419
2005	24,758	310	1,172	3,160	3,365	3,365	3,868	4,791	1,267	1,984	1,179	210	88	4,979	16,317	3,461
2006	24,926	317	1,196	3,100	3,432	3,353	3,875	4,839	1,320	1,981	1,190	233	91	4,957	16,475	3,494
2007	25,114	328	1,228	3,050	3,506	3,345	3,874	4,821	1,418	1,995	1,205	251	93	4,944	16,626	3,544
Females																
1981	24,026	292	1,088	3,248	3,650	3,327	2,807	4,009	1,295	2,445	1,472	273	119	5,004	13,416	5,605
1986	24,239	301	1,161	2,859	3,761	3,325	3,229	3,850	1,335	2,346	1,604	326	140	4,672	13,815	5,752
1991	24,584	324	1,253	2,873	3,333	3,739	3,322	3,964	1,239	2,323	1,656	388	171	4,720	14,088	5,777
1996	24,890	293	1,229	3,056	2,961	3,849	3,336	4,432	1,177	2,286	1,628	430	214	4,876	14,281	5,734
2000	25,203	281	1,174	3,109	2,928	3,667	3,653	4,637	1,227	2,190	1,649	448	240	4,867	14,582	5,755
2001	25,284	273	1,154	3,102	2,979	3,591	3,726	4,702	1,219	2,185	1,661	444	248	4,834	14,694	5,757
2002	25,362	273	1,131	3,095	3,026	3,503	3,795	4,767	1,223	2,187	1,676	433	254	4,808	14,782	5,772
2003	25,448	280	1,112	3,073	3,095	3,433	3,838	4,808	1,248	2,197	1,696	410	260	4,784	14,854	5,809
2004	25,548	291	1,103	3,043	3,153	3,380	3,881	4,843	1,280	2,203	1,703	403	264	4,753	14,940	5,854
2005	25,708	296	1,117	3,001	3,218	3,378	3,905	4,885	1,319	2,206	1,686	428	269	4,733	15,066	5,908
2006	25,837	303	1,139	2,952	3,264	3,355	3,918	4,938	1,377	2,190	1,670	461	270	4,717	15,152	5,968
2007	25,978	312	1,170	2,910	3,306	3,324	3,917	4,937	1,485	2,198	1,660	488	270	4,711	15,166	6,100
Wales																
Persons																
1981	2,813	36	136	407	434	383	333	485	158	272	139	21	8	626	1,663	525
1986	2,811	37	143	357	438	369	378	464	166	271	154	26	10	578	1,686	547
1991	2,873	38	153	363	393	402	389	486	154	284	164	32	13	589	1,711	573
1996	2,891	34	146	381	352	409	379	541	147	279	170	37	17	598	1,714	578
2000	2,907	32	138	383	352	378	403	565	152	265	180	39	19	591	1,734	581
2001	2,910	32	136	382	356	365	409	572	154	264	183	39	20	587	1,739	584
2002	2,920	30	132	380	365	354	414	578	156	265	185	39	20	582	1,749	589
2003	2,931	31	129	377	376	345	417	582	161	268	187	38	21	577	1,759	595
2004	2,946	32	127	373	385	339	421	586	166	270	188	39	21	572	1,773	602
2005	2,954	32	126	367	390	335	421	589	171	271	186	42	21	566	1,780	608
2006	2,966	33	127	361	399	332	421	592	177	273	186	45	22	561	1,790	615
2007	2,980	34	130	353	407	330	418	590	188	276	185	48	22	557	1,797	627
Males																
1981	1,365	18	70	209	221	193	168	240	73	118	48	5	2	321	871	173
1986	1,362	19	73	184	221	186	190	231	79	119	54	7	2	297	885	181
1991	1,391	20	78	186	199	199	194	242	74	128	60	8	2	302	891	198
1996	1,401	17	74	195	179	203	187	269	72	128	64	10	3	306	890	206
2000	1,408	16	71	196	177	185	198	280	75	124	71	12	4	303	895	210
2001	1,409	16	69	196	179	178	200	283	75	124	73	12	4	301	895	212
2002	1,414	16	68	195	184	172	202	285	77	125	74	12	5	299	900	215
2003	1,423	16	66	194	190	168	204	287	79	127	75	11	5	296	908	218
2004	1,432	16	65	192	196	166	205	288	82	128	76	12	5	294	917	221
2005	1,439	17	65	189	200	166	205	290	84	129	77	13	5	291	924	224
2006	1,445	17	65	185	204	164	205	291	87	130	77	15	5	288	929	227
2007	1,454	17	67	181	209	164	203	289	93	132	78	16	6	286	937	231
Females																
1981	1,448	18	66	199	213	190	165	246	85	154	91	16	6	305	791	352
1986	1,449	18	70	173	217	184	188	233	87	152	100	20	8	282	801	366
1991	1,482	19	75	177	194	203	195	244	80	156	104	24	10	288	820	375
1996	1,490	16	71	186	173	206	192	272	75	151	106	27	13	293	825	373
2000	1,499	15	67	186	175	192	206	285	77	142	109	28	15	288	840	371
2001	1,502	15	66	186	177	187	209	289	78	141	110	27	15	286	844	372
2002	1,506	15	65	185	181	182	212	293	80	140	111	27	16	283	849	374
2003	1,508	15	63	183	185	176	214	295	82	141	112	27	16	280	851	377
2004	1,514	15	62	182	189	172	216	298	84	142	112	26	16	278	856	380
2005	1,515	16	61	179	191	170	216	299	87	142	110	28	16	275	856	383
2006	1,521	16	62	176	195	168	216	301	90	143	108	30	16	273	861	387
2007	1,526	16	63	172	198	166	215	300	96	144	107	32	16	271	860	395

See notes on first page of table.

Table 1.4 continued **Population: age and sex**

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64M/59F[1]	65M/60F[1] and over
Scotland																
Persons																
1981	5,180	69	249	780	875	724	603	880	260	460	232	35	14	1,188	3,110	882
1986	5,112	66	257	656	863	739	665	849	273	435	252	42	15	1,061	3,161	890
1991	5,083	66	258	634	746	795	696	853	265	441	259	51	19	1,021	3,151	912
1996	5,092	59	252	643	651	798	722	925	259	448	256	57	24	1,019	3,151	922
2000	5,063	53	230	636	628	717	774	962	263	445	267	59	28	985	3,141	937
2001	5,064	52	224	629	633	696	782	979	262	447	272	59	29	970	3,150	944
2002	5,055	51	217	622	639	669	788	993	262	449	276	58	30	955	3,150	950
2003	5,057	52	212	614	648	648	793	1,008	265	452	281	55	31	943	3,156	958
2004	5,078	54	210	609	653	635	796	1,025	270	455	286	54	31	935	3,175	968
2005	5,095	54	211	600	659	629	794	1,042	273	457	286	59	32	929	3,191	975
2006	5,117	55	213	588	668	627	790	1,058	280	456	287	63	32	922	3,213	983
2007	5,144	57	218	576	676	629	781	1,060	301	457	290	66	32	917	3,227	1,001
Males																
1981	2,495	35	128	400	445	364	298	424	118	194	77	8	3	610	1,603	282
1986	2,462	34	131	336	438	371	331	410	127	184	86	10	3	543	1,636	283
1991	2,445	34	132	324	377	394	345	415	124	192	91	13	3	522	1,623	299
1996	2,447	30	128	328	327	392	355	454	122	198	93	15	5	521	1,616	310
2000	2,432	28	118	326	315	347	377	474	125	199	100	17	6	505	1,606	322
2001	2,434	26	115	322	319	337	379	483	125	200	103	17	6	497	1,610	327
2002	2,432	26	111	319	324	325	382	490	125	202	106	17	7	489	1,612	331
2003	2,435	26	108	314	329	315	383	496	126	204	108	16	7	483	1,616	336
2004	2,446	28	107	312	332	310	384	503	129	207	111	16	7	479	1,627	341
2005	2,456	28	107	307	335	309	382	511	131	208	112	18	7	476	1,635	345
2006	2,469	28	109	301	340	310	380	517	135	208	113	20	8	472	1,649	349
2007	2,486	29	112	295	345	313	375	517	146	210	116	21	8	469	1,662	354
Females																
1981	2,685	33	121	380	430	359	305	456	142	265	155	27	11	579	1,506	600
1986	2,649	32	126	320	424	368	334	439	146	250	166	32	12	518	1,525	606
1991	2,639	32	126	309	369	402	351	437	141	249	168	38	16	499	1,528	612
1996	2,645	28	123	315	324	406	367	470	137	250	164	42	20	498	1,535	612
2000	2,631	26	112	310	313	369	397	488	138	246	166	43	22	480	1,535	616
2001	2,630	26	109	307	314	359	403	496	137	246	169	43	23	473	1,540	617
2002	2,623	25	106	303	315	344	406	504	137	247	171	41	23	466	1,538	619
2003	2,623	25	104	300	318	332	410	512	139	248	173	39	24	460	1,540	622
2004	2,632	26	103	297	321	325	412	521	141	248	175	38	24	457	1,549	627
2005	2,639	26	103	293	324	320	411	531	142	249	174	41	25	453	1,556	630
2006	2,647	27	104	287	328	317	410	541	145	247	174	43	25	450	1,564	634
2007	2,659	28	106	281	332	316	406	542	155	247	174	45	24	448	1,564	646
Northern Ireland																
Persons																
1981	1,543	27	106	282	271	200	175	227	68	116	57	..	..	444	874	224
1986	1,574	28	107	261	277	217	190	227	71	115	64	16	..	423	917	234
1991	1,607	26	106	260	256	240	200	241	70	121	69	14	6	417	945	246
1996	1,662	24	99	266	244	257	220	266	70	123	72	15	7	415	993	253
2000	1,683	22	95	259	237	247	243	284	73	123	75	16	7	403	1,020	259
2001	1,689	22	93	255	240	243	248	290	74	123	77	16	7	397	1,030	262
2002	1,697	22	91	253	243	238	251	296	75	125	79	16	7	393	1,037	266
2003	1,703	21	89	251	246	233	254	301	78	126	81	16	8	388	1,044	271
2004	1,710	22	87	248	250	229	256	305	81	127	82	16	8	383	1,052	275
2005	1,724	23	88	245	253	228	257	310	84	128	83	17	8	381	1,064	280
2006	1,742	23	89	242	258	229	259	316	87	130	83	18	8	380	1,077	284
2007	1,759	24	91	239	260	231	259	321	90	132	84	19	8	380	1,089	290
Males																
1981	757	14	54	145	140	102	87	109	32	50	21	..	..	228	454	75
1986	768	14	55	134	142	109	95	110	33	50	23	4	..	217	474	77
1991	783	13	54	133	131	119	100	118	32	53	26	4	1	213	487	83
1996	810	12	51	136	124	128	109	131	33	54	27	4	1	212	511	87
2000	820	11	49	133	120	122	119	141	35	55	29	5	2	207	524	90
2001	824	11	48	131	122	120	122	144	35	56	30	5	2	204	529	92
2002	829	11	47	130	124	117	123	147	36	56	31	5	2	202	534	94
2003	833	11	46	129	126	115	124	149	38	57	31	5	2	199	538	95
2004	836	11	45	127	128	113	125	151	39	58	32	5	2	197	542	97
2005	844	12	45	126	130	113	126	153	41	59	32	5	2	196	550	99
2006	853	12	46	124	132	113	127	156	42	60	33	6	2	195	558	101
2007	862	13	47	123	134	114	127	158	44	61	33	6	2	195	564	103
Females																
1981	786	13	52	137	130	98	88	118	37	66	37	..	..	216	420	150
1986	805	13	52	127	135	107	96	118	38	65	41	12	..	206	442	157
1991	824	13	52	127	125	121	100	123	38	67	44	10	4	203	458	163
1996	851	11	49	130	120	129	110	135	37	69	45	11	6	203	482	167
2000	862	11	46	126	118	125	124	143	38	68	46	11	6	196	497	169
2001	865	10	45	124	119	123	126	146	38	68	47	11	6	193	501	170
2002	868	11	44	123	119	120	128	149	39	68	48	11	6	191	504	173
2003	870	10	43	122	120	118	129	152	40	68	49	11	6	189	506	175
2004	874	11	42	121	122	116	130	154	42	69	50	11	6	187	509	178
2005	880	11	43	119	123	115	131	157	43	69	50	11	6	186	514	181
2006	888	11	43	118	126	115	132	160	45	69	51	12	6	185	520	183
2007	897	12	44	116	127	117	132	163	46	70	51	13	6	185	526	187

See notes on first page of table.

Table 1.5 Population: age, sex and legal marital status

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
Aged											
16 and over											
1971	36,818	4,173	12,522	187	682	17,563	3,583	12,566	296	2,810	19,255
1976	37,486	4,369	12,511	376	686	17,941	3,597	12,538	533	2,877	19,545
1981	38,724	5,013	12,238	611	698	18,559	4,114	12,284	828	2,939	20,165
1986	39,837	5,625	11,867	917	695	19,103	4,617	12,000	1,165	2,953	20,734
1991	40,501	5,891	11,636	1,187	727	19,441	4,817	11,833	1,459	2,951	21,060
1996	40,827	6,225	11,310	1,346	733	19,614	5,168	11,433	1,730	2,881	21,212
1999	41,325	6,582	11,143	1,433	732	19,890	5,526	11,235	1,875	2,800	21,435
2000	41,569	6,721	11,113	1,456	731	20,022	5,650	11,199	1,927	2,772	21,547
2001	41,865	6,894	11,090	1,482	733	20,198	5,798	11,150	1,975	2,745	21,667
2002	42,135	7,086	11,008	1,534	730	20,358	5,957	11,075	2,036	2,710	21,777
2003	42,409	7,272	10,929	1,589	727	20,517	6,126	11,000	2,096	2,669	21,892
2004	42,731	7,483	10,851	1,642	724	20,700	6,311	10,935	2,156	2,629	22,031
2005	43,141	7,708	10,801	1,696	722	20,927	6,529	10,882	2,215	2,589	22,214
2006	43,494	7,944	10,723	1,739	720	21,126	6,740	10,812	2,266	2,549	22,367
2007	43,860	8,194	10,645	1,780	719	21,338	6,946	10,745	2,317	2,514	22,521
16–19											
1971	2,666	1,327	34	0	0	1,362	1,163	142	0	0	1,305
1976	2,901	1,454	28	0	0	1,482	1,289	129	0	0	1,419
1981	3,310	1,675	20	0	0	1,694	1,523	93	0	0	1,616
1986	3,131	1,587	10	0	0	1,596	1,484	49	1	0	1,535
1991	2,665	1,358	8	0	0	1,366	1,267	32	0	0	1,300
1996	2,402	1,209	6	0	0	1,216	1,164	21	0	0	1,186
1999	2,543	1,280	6	1	1	1,288	1,234	20	1	1	1,255
2000	2,523	1,276	6	1	1	1,283	1,221	18	1	1	1,240
2001	2,567	1,304	5	1	1	1,312	1,237	16	1	1	1,255
2002	2,630	1,352	4	1	1	1,357	1,259	13	1	1	1,273
2003	2,703	1,392	4	1	1	1,397	1,293	12	0	1	1,306
2004	2,771	1,424	3	0	0	1,428	1,332	11	0	0	1,343
2005	2,801	1,434	2	0	0	1,436	1,355	9	0	0	1,365
2006	2,829	1,457	2	0	0	1,459	1,364	7	0	0	1,370
2007	2,861	1,474	2	0	0	1,475	1,380	6	0	0	1,386
20–24											
1971	3,773	1,211	689	3	0	1,904	745	1,113	9	2	1,869
1976	3,395	1,167	557	4	0	1,728	725	925	16	2	1,667
1981	3,744	1,420	466	10	1	1,896	1,007	811	27	2	1,847
1986	4,171	1,768	317	14	0	2,099	1,383	657	32	1	2,072
1991	3,911	1,717	242	12	0	1,971	1,421	490	29	1	1,941
1996	3,291	1,538	117	3	0	1,658	1,361	260	11	1	1,633
1999	3,047	1,449	78	2	0	1,530	1,320	188	8	1	1,517
2000	3,088	1,470	74	3	0	1,548	1,352	180	8	1	1,540
2001	3,157	1,501	74	3	1	1,579	1,390	178	8	1	1,578
2002	3,212	1,533	69	3	1	1,606	1,430	167	8	1	1,606
2003	3,281	1,573	68	3	1	1,645	1,465	161	8	1	1,636
2004	3,376	1,639	69	3	1	1,712	1,497	157	8	2	1,664
2005	3,477	1,700	66	3	1	1,771	1,547	150	8	2	1,706
2006	3,558	1,749	59	3	1	1,812	1,599	138	7	1	1,746
2007	3,661	1,822	56	3	1	1,881	1,646	126	6	1	1,780
25–29											
1971	3,267	431	1,206	16	1	1,654	215	1,367	29	4	1,614
1976	3,758	533	1,326	39	2	1,900	267	1,522	65	5	1,859
1981	3,372	588	1,057	54	1	1,700	331	1,247	89	4	1,671
1986	3,713	835	949	79	1	1,863	527	1,207	113	4	1,850
1991	4,154	1,132	856	82	1	2,071	800	1,158	123	2	2,083
1996	3,950	1,273	650	46	1	1,970	977	906	93	3	1,980
1999	3,687	1,304	497	34	1	1,836	1,051	725	72	3	1,851
2000	3,605	1,305	459	31	1	1,796	1,065	677	65	3	1,810
2001	3,487	1,293	420	28	1	1,742	1,059	625	58	3	1,745
2002	3,365	1,286	375	26	1	1,688	1,054	568	52	3	1,676
2003	3,284	1,281	340	25	1	1,647	1,060	527	49	2	1,638
2004	3,280	1,297	319	24	1	1,641	1,089	501	47	2	1,639
2005	3,354	1,344	307	23	1	1,675	1,143	488	46	2	1,679
2006	3,434	1,400	295	23	1	1,718	1,198	471	46	2	1,716
2007	3,526	1,457	289	23	1	1,770	1,248	461	45	2	1,756

Table 1.5 continued **Population: age, sex and legal marital status**

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
30–34											
1971	2,897	206	1,244	23	3	1,475	111	1,269	34	8	1,422
1976	3,220	236	1,338	55	3	1,632	118	1,388	75	8	1,588
1981	3,715	318	1,451	97	3	1,869	165	1,544	129	9	1,846
1986	3,338	355	1,197	124	2	1,679	206	1,293	154	6	1,660
1991	3,708	520	1,172	155	2	1,849	335	1,330	189	5	1,859
1996	4,126	776	1,135	138	2	2,050	551	1,316	201	7	2,076
1999	4,113	877	1,043	121	3	2,044	651	1,223	188	7	2,069
2000	4,076	904	1,007	114	2	2,027	679	1,182	181	7	2,049
2001	4,050	934	971	108	2	2,016	711	1,142	174	7	2,033
2002	3,992	959	918	105	2	1,984	742	1,093	167	6	2,009
2003	3,919	979	864	102	2	1,947	766	1,041	159	6	1,972
2004	3,810	988	810	97	2	1,897	777	982	149	5	1,913
2005	3,724	1,002	761	92	2	1,856	791	933	139	5	1,868
2006	3,606	1,010	703	84	2	1,799	800	876	127	5	1,808
2007	3,473	1,010	649	78	2	1,738	800	814	117	4	1,735
35–44											
1971	5,736	317	2,513	48	13	2,891	201	2,529	66	48	2,845
1976	5,608	286	2,442	104	12	2,843	167	2,427	129	42	2,765
1981	5,996	316	2,519	178	12	3,024	170	2,540	222	41	2,972
1986	6,856	396	2,738	293	12	3,438	213	2,815	350	39	3,418
1991	7,022	477	2,632	384	11	3,504	280	2,760	444	34	3,517
1996	7,017	653	2,426	398	12	3,489	427	2,568	497	36	3,528
1999	7,475	832	2,459	408	13	3,711	577	2,617	533	37	3,763
2000	7,661	899	2,481	410	12	3,802	635	2,640	547	37	3,859
2001	7,816	963	2,494	411	12	3,881	692	2,649	558	36	3,935
2002	7,964	1,031	2,490	424	12	3,957	751	2,650	572	35	4,007
2003	8,058	1,089	2,471	435	12	4,007	804	2,631	583	34	4,051
2004	8,133	1,141	2,441	443	11	4,036	858	2,613	593	32	4,097
2005	8,194	1,195	2,417	450	11	4,073	910	2,583	597	31	4,121
2006	8,213	1,249	2,371	448	11	4,080	965	2,543	595	30	4,134
2007	8,209	1,303	2,319	444	11	4,076	1,019	2,498	586	29	4,132
45–64											
1971	11,887	502	4,995	81	173	5,751	569	4,709	125	733	6,136
1976	11,484	496	4,787	141	160	5,583	462	4,568	188	683	5,901
1981	11,040	480	4,560	218	147	5,405	386	4,358	271	620	5,635
1986	10,860	461	4,422	331	141	5,355	327	4,220	388	570	5,505
1991	10,960	456	4,394	456	127	5,433	292	4,211	521	503	5,527
1996	11,820	528	4,587	628	121	5,864	318	4,466	732	440	5,956
1999	12,198	589	4,627	706	121	6,043	355	4,541	844	415	6,155
2000	12,328	615	4,638	727	121	6,101	372	4,564	881	410	6,227
2001	12,447	644	4,647	747	121	6,159	391	4,578	918	401	6,289
2002	12,573	670	4,642	779	120	6,211	413	4,597	960	391	6,362
2003	12,710	702	4,643	814	119	6,278	437	4,612	1,002	381	6,432
2004	12,852	736	4,643	850	117	6,347	465	4,625	1,045	371	6,505
2005	13,021	774	4,652	888	117	6,431	497	4,642	1,090	362	6,590
2006	13,243	818	4,676	926	117	6,537	535	4,677	1,138	356	6,706
2007	13,439	864	4,678	963	116	6,621	579	4,704	1,187	348	6,818
65 and over											
1971	6,592	179	1,840	17	492	2,527	580	1,437	32	2,016	4,065
1976	7,119	197	2,033	33	510	2,773	569	1,579	60	2,138	4,347
1981	7,548	216	2,167	54	534	2,971	533	1,692	90	2,263	4,578
1986	7,768	223	2,234	76	539	3,072	477	1,759	127	2,333	4,696
1991	8,080	231	2,332	99	586	3,248	422	1,853	152	2,405	4,832
1996	8,221	247	2,390	134	597	3,367	369	1,897	196	2,393	4,854
1999	8,262	251	2,431	161	594	3,437	338	1,922	230	2,336	4,825
2000	8,287	252	2,449	171	593	3,466	327	1,938	243	2,313	4,821
2001	8,342	254	2,478	183	595	3,510	318	1,960	259	2,295	4,832
2002	8,398	255	2,508	196	594	3,554	309	1,987	276	2,272	4,844
2003	8,454	257	2,538	210	593	3,597	301	2,017	295	2,245	4,857
2004	8,510	258	2,566	224	592	3,640	293	2,046	314	2,216	4,870
2005	8,571	260	2,596	239	590	3,685	286	2,077	335	2,187	4,885
2006	8,611	261	2,618	254	589	3,722	279	2,101	353	2,155	4,889
2007	8,690	264	2,652	270	589	3,775	274	2,137	375	2,128	4,915

Table 2.1 Vital statistics summary

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Civil Partnerships		Divorces		Deaths		Infant mortality[6]		Neonatal mortality[7]		Perinatal mortality[8]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[5]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[9]
United Kingdom																		
1976	675.5	12.0	61.1	90	406.0	..	:	:	135.4	..	680.8	12.1	9.79	14.5	6.68	9.9	12.25	18.0
1981	730.7	13.0	91.3	125	397.8	49.4	:	:	156.4	11.3	658.0	11.7	8.16	11.2	4.93	6.7	8.79	12.0
1986	754.8	13.3	154.3	204	393.9	..	:	:	168.2	..	660.7	11.7	7.18	9.5	4.00	5.3	7.31	9.6
1991	792.3	13.8	236.1	298	349.7	..	:	:	173.5	..	646.2	11.2	5.82	7.4	3.46	4.4	6.45	8.1
1996	733.2	12.6	260.4	355	317.5	..	:	:	171.7	..	636.0	10.9	4.50	6.1	3.00	4.1	6.41	8.7
1999	700.0	11.9	271.6	388	301.1	..	:	:	158.7	..	632.1	10.8	4.05	5.8	2.73	3.9	5.79	8.2
2000	679.0	11.5	268.1	395	305.9	..	:	:	154.6	..	608.4	10.3	3.81	5.6	2.63	3.9	5.56	8.1
2001	669.1	11.3	268.0	401	286.1	..	:	:	156.8	..	602.3	10.2	3.66	5.5	2.44	3.7	5.39	8.0
2002	668.8	11.3	271.7	406	293.0	..	:	:	160.5	..	606.2	10.2	3.54	5.3	2.37	3.6	5.53	8.2
2003	695.6	11.7	288.5	415	308.6	..	:	:	166.7	..	612.0	10.3	3.69	5.3	2.54	3.7	5.92	8.5
2004	716.0	12.0	302.6	423	313.6	..	:	:	167.1	..	583.1	9.7	3.66	5.1	2.49	3.5	5.88	8.2
2005	722.5	12.0	310.2	429	286.8	..	1.95[10]	..	155.1	..	582.7	9.7	3.68	5.1	2.52	3.5	5.78	8.0
2006	748.6	12.4	326.8	437	277.6[P]	..	16.11	..	148.1	..	572.2	9.4	3.74	5.0	2.61	3.5	5.94	7.9
2007	772.2	12.7	343.2	444	270.0[P]	..	8.73[P]	..	144.2[P]	..	574.7	9.4	3.74	4.8	2.55	3.3	6.02	7.8
2006 March	178.9	12.0	77.5	433	30.3[P]	..	4.87	..	37.7	..	159.9	10.7	0.90	5.1	0.61	3.4	1.45	8.1
June	186.0	12.3	80.2	431	76.9[P]	..	4.36	..	36.7	..	141.4	9.4	0.94	5.0	0.65	3.5	1.50	8.0
Sept	195.2	12.8	85.8	439	121.9[P]	..	4.49	..	37.0	..	130.7	8.6	0.93	4.8	0.67	3.4	1.54	7.8
Dec	188.5	12.3	83.3	442	48.6[P]	..	2.38	..	36.7	..	140.2	9.2	0.97	5.2	0.68	3.6	1.45	7.7
2007 March	184.4	12.3	81.9	444	31.0[P]	..	1.69	..	38.9[P]	..	159.3	10.6	0.91	4.9	0.64	3.4	1.47	7.9
June	189.8	12.5	82.6	435	75.7[P]	..	2.37	..	37.2[P]	..	138.0	9.1	0.99	5.2	0.66	3.5	1.52	8.0
Sept	202.8	13.2	90.5	446	115.8[P]	..	2.96	..	36.7[P]	..	129.9	8.4	0.96	4.6	0.63	3.1	1.51	7.4
Dec	195.3	12.7	88.1	451	47.4[P]	..	1.71	..	31.4[P]	..	147.5	9.6	0.90	4.6	0.62	3.2	1.52	7.7
2008 March	195.4[P]	12.8[P]	88.8[P]	455[P]	..	..	1.25[P]	..	..	..	155.4[P]	10.2[P]	0.95[P]	4.9[P]	0.66[P]	3.4[P]	1.52[P]	7.7[P]
June	198.0[P]	12.5[P]	82.6[P]	449[P]	..	..	1.94[P]	..	..	..	139.8[P]	9.2[P]	0.82[P]	4.2[P]	0.59[P]	3.0[P]	1.47[P]	7.4[P]
Sept	204.0[P]	13.3[P]	93.0[P]	456[P]	..	..	..	..	..	..	129.8[P]	8.4[P]	0.96[P]	4.7[P]	0.68[P]	3.3[P]	1.46[P]	7.1[P]
England and Wales																		
1976	584.3	11.8	53.8	92	358.6	57.7	:	:	126.7	10.1	598.5	12.1	8.34	14.3	5.66	9.7	10.45	17.7
1981	634.5	12.8	81.0	128	352.0	49.6	:	:	145.7	11.9	577.9	11.6	7.02	11.1	4.23	6.7	7.56	11.8
1986	661.0	13.2	141.3	214	347.9	43.6	:	:	153.9	12.9	581.2	11.6	6.31	9.6	3.49	5.3	6.37	9.6
1991	699.2	13.8	211.3	302	306.8	36.0	:	:	158.7	13.5	570.0	11.2	5.16	7.4	3.05	4.4	5.65	8.0
1996	649.5	12.6	232.7	358	279.0	30.9	:	:	157.1	13.8	560.1	10.9	3.99	6.1	2.68	4.1	5.62	8.6
1999	621.9	12.0	241.9	389	263.5	27.8	:	:	144.6	12.9	556.1	10.7	3.62	5.8	2.44	3.9	5.14	8.2
2000	604.4	11.6	238.6	395	268.0	27.8	:	:	141.1	12.7	535.7	10.3	3.38	5.6	2.34	3.9	4.96	8.2
2001	594.6	11.4	238.1	400	249.2	25.4	:	:	143.8	12.9	530.4	10.1	3.24	5.4	2.14	3.6	4.76	8.0
2002	596.1	11.3	242.0	406	255.6	25.6	:	:	147.7	13.4	533.5	10.1	3.13	5.2	2.13	3.6	4.99	8.3
2003	621.5	11.8	257.2	414	270.1	26.4	:	:	153.5	14.0	538.3	10.2	3.31	5.3	2.26	3.6	5.36	8.6
2004	639.7	12.1	269.7	422	273.1	26.1	:	:	153.4	14.1	512.5	9.7	3.22	5.0	2.21	3.5	5.39	8.4
2005	645.8	12.1	276.5	428	247.8	23.1	1.86[10]	5.7[10]	141.8	13.1	512.7	9.7	3.26	5.0	2.23	3.4	5.21	8.0
2006	669.6	12.5	291.4	435	239.0[P]	21.8[P]	14.94	1.4	132.6	12.2	502.6	9.4	3.37	5.0	2.35	3.5	5.36	8.0
2007	690.0	12.8	305.6	443	231.4[P]	20.6[P]	7.93	0.7	128.5[P]	12.0[P]	504.1	9.3	3.35	4.8	2.28	3.3	5.39	7.8
2006 March	159.5	12.0	68.7	431	25.9[P]	9.6[P]	4.58	1.7	34.3	12.8	141.0	10.6	0.82	5.2	0.56	3.5	1.32	8.2
June	166.2	12.4	71.4	430	66.3[P]	24.2[P]	4.01	1.5	33.0	12.2	123.9	9.2	0.84	5.1	0.58	3.5	1.37	8.2
Sept	174.9	12.9	76.8	439	106.2[P]	38.4[P]	4.18	1.5	32.9	12.0	114.6	8.5	0.85	4.8	0.60	3.4	1.38	7.9
Dec	169.0	12.5	74.5	441	41.2[P]	14.9[P]	2.18	0.8	32.4	11.8	123.1	9.1	0.86	5.1	0.60	3.6	1.30	7.6
2007 March	164.0	12.3	72.5	442	26.7[P]	9.6[P]	1.55	0.6	34.7[P]	13.2[P]	139.3	10.5	0.80	4.9	0.56	3.4	1.31	7.9
June	169.5	12.6	73.5	434	65.2[P]	23.3[P]	2.16	0.8	33.1[P]	12.4[P]	121.0	9.0	0.88	5.2	0.60	3.5	1.36	8.0
Sept	181.4	13.3	80.8	445	99.4[P]	35.1[P]	2.68	0.9	33.0[P]	12.3[P]	114.0	8.4	0.84	4.6	0.57	3.1	1.36	7.4
Dec	175.0	12.8	78.7	450	40.1[P]	14.2[P]	1.54	0.5	27.6[P]	10.3[P]	129.7	9.5	0.83	4.7	0.56	3.2	1.37	7.8
2008 March	173.8[P]	12.8[P]	78.5[P]	452[P]	..	..	1.13[P]	0.4[P]	31.9[P]	12.0[P]	136.1[P]	10.1[P]	0.86[P]	5.0[P]	0.60[P]	3.4[P]	1.36[P]	7.8[P]
June	176.8[P]	13.1[P]	79.3[P]	449[P]	..	..	1.80[P]	0.6[P]	30.8[P]	11.6[P]	122.7[P]	9.1[P]	0.79[P]	4.5[P]	0.53[P]	3.0[P]	1.32[P]	7.5[P]
Sept	182.0[P]	13.3[P]	82.8[P]	455[P]	..	..	..	..	..	..	113.8[P]	8.3[P]	0.86[P]	4.7[P]	0.60[P]	3.3[P]	1.30[P]	7.1[P]
England																		
1976	550.4	11.8	50.8	92	339.0	..	:	:	..	..	560.3	12.0	7.83	14.2	5.32	9.7	9.81	17.6
1981	598.2	12.8	76.9	129	332.2	..	:	:	..	..	541.0	11.6	6.50	10.9	3.93	6.6	7.04	11.7
1986	623.6	13.2	133.5	214	328.4	..	:	:	146.0	..	544.5	11.6	5.92	9.5	3.27	5.2	5.98	9.5
1991	660.8	13.8	198.9	301	290.1	..	:	:	150.1	..	534.0	11.2	4.86	7.3	2.87	4.3	5.33	8.0
1996	614.2	12.7	218.2	355	264.2	..	:	:	148.7	..	524.0	10.8	3.74	6.1	2.53	4.1	5.36	8.7
1999	589.5	12.0	226.7	385	249.5	..	:	:	137.0	..	519.6	10.8	3.38	5.7	2.29	3.9	4.86	8.2
2000	572.8	11.7	223.8	391	253.8	..	:	:	133.9	..	501.0	10.2	3.18	5.6	2.21	3.9	4.69	8.2
2001	563.7	11.4	223.3	396	236.2	..	:	:	136.4	..	496.1	10.0	3.04	5.4	2.02	3.6	4.51	8.0
2002	565.7	11.4	227.0	401	242.1	..	:	:	140.2	..	499.1	10.1	2.97	5.2	2.02	3.6	4.75	8.3
2003	589.9	11.8	241.4	409	255.6	..	:	:	145.8	..	503.4	10.1	3.14	5.3	2.15	3.7	5.09	8.6
2004	607.2	12.1	253.1	417	258.2	..	:	:	145.5	..	479.2	9.6	3.03	5.0	2.09	3.4	5.10	8.4
2005	613.0	12.1	259.4	423	233.8	..	1.79[10]	..	134.6	..	479.4	9.6	3.10	5.0	2.12	3.5	4.92	8.0
2006	635.7	12.5	273.5	430	226.0[P]	..	14.38	..	125.6	..	470.3	9.3	3.19	5.0	2.24	3.5	5.11	8.0
2007	655.4	12.8	287.0	438[P]	215.6[P]	..	7.64	..	121.9[P]	..	470.7	9.2	3.13	4.8	2.15	3.3	5.10	7.7
2006 March	151.4	12.1	64.5	426	24.4[P]	..	4.42	..	32.5	..	132.0	10.5	0.79	5.2	0.54	3.6	1.26	8.3
June	157.8	12.5	67.0	425	62.5[P]	..	3.86	..	31.2	..	115.9	9.2	0.80	5.1	0.56	3.5	1.31	8.2
Sept	166.0	13.0	72.0	434	100.1[P]	..	4.02	..	31.2	..	107.1	8.4	0.80	4.8	0.57	3.4	1.31	7.8
Dec	160.5	12.5	70.0	436	38.9[P]	..	2.09	..	30.7	..	115.3	9.0	0.81	5.0	0.57	3.6	1.24	7.7
2007 March	155.9	12.4	68.1	437	25.4[P]	..	1.49	..	32.9[P]	..	130.3	10.3	0.74	4.7	0.52	3.3	1.23	7.8
June	161.0	12.6	69.0	429	61.6[P]	..	2.06	..	31.4[P]	..	112.9	8.9	0.84	5.2	0.57	3.5	1.30	8.0
Sept	172.2	13.4	75.9	441	93.7[P]	..	2.60	..	31.4[P]	..	106.4	8.3	0.79	4.6	0.54	3.1	1.29	7.5
Dec	166.3	12.9	74.0	445	37.9[P]	..	1.48	..	26.2[P]	..	121.2	9.4	0.76	4.6	0.53	3.2	1.28	7.6
2008 March	165.0[P]	12.9[P]	73.7[P]	447[P]	..	..	1.08[P]	..	30.3[P]	..	127.3[P]	9.9[P]	0.82[P]	5.0[P]	0.60[P]	3.6[P]	1.29[P]	7.8[P]
June	167.8[P]	13.1[P]	74.3[P]	443[P]	..	..	1.73[P]	..	29.2[P]	..	114.7[P]	9.0[P]	0.74[P]	4.4[P]	0.50[P]	3.0[P]	1.25[P]	7.4[P]
Sept	172.8[P]	13.4[P]	77.7[P]	450[P]	..	..	..	..	..	..	106.5[P]	8.2[P]	0.82[P]	4.5[P]	0.57[P]	3.1[P]	1.24[P]	6.8[P]

Note: Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2005. Death figures for 2006, 2007 and provisional death figures for 2008 relate to registrations.
Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales. These events are, however, included in the totals for England and Wales combined, and for the United Kingdom.
2007 Perinatal figures have been updated to include late receipt of stillbirth records.
From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.
Infant, neonatal and perinatal mortality rates for Northern Ireland have now been amended to take account of the non-resident livebirths.
The birth and death rates for 2008 are based on 2006-based population projections for 2008. Marriage, civil partnership and divorce rates for 2008 are based on 2007 marital status estimates.
Provisional 2008 divorce statistics for Scotland have been withdrawn and will be released in spring 2009.

Table 2.1 continued **Vital statistics summary**

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Civil Partnerships		Divorces		Deaths		Infant mortality[6]		Neonatal mortality[7]		Perinatal mortality[8]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[5]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[9]
Wales																		
1976	33.4	11.9	2.9	86	19.5	..	:	:	..	..	36.3	13.0	0.46	13.7	0.32	9.6	0.64	19.0
1981	35.8	12.7	4.0	112	19.8	..	:	:	..	..	35.0	12.4	0.45	12.6	0.29	8.1	0.51	14.1
1986	37.0	13.2	7.8	211	19.5	..	:	:	7.8	..	34.7	12.3	0.35	9.5	0.21	5.6	0.38	10.3
1991	38.1	13.3	12.3	323	16.6	..	:	:	8.4	..	34.1	11.9	0.25	6.6	0.16	4.1	0.30	7.9
1996	34.9	12.1	14.4	412	14.8	..	:	:	8.4	..	34.6	12.0	0.20	5.6	0.13	3.6	0.26	7.5
1999	32.1	11.1	14.8	461	14.0	..	:	:	7.5	..	35.0	12.1	0.20	6.1	0.13	4.0	0.25	7.7
2000	31.3	10.8	14.8	472	14.1	..	:	:	7.2	..	33.3	11.5	0.17	5.3	0.11	3.5	0.23	7.2
2001	30.6	10.5	14.8	483	13.0	..	:	:	7.4	..	33.0	11.3	0.16	5.4	0.11	3.5	0.23	7.5
2002	30.2	10.3	15.0	497	13.5	..	:	:	7.6	..	33.2	11.4	0.14	4.5	0.10	3.2	0.24	7.7
2003	31.4	10.7	15.8	503	14.5	..	:	:	7.7	..	33.7	11.5	0.13	4.3	0.10	3.1	0.24	7.6
2004	32.3	11.0	16.6	513	14.9	..	:	:	7.9	..	32.1	10.9	0.16	4.9	0.10	3.1	0.26	8.0
2005	32.6	11.0	17.1	524	14.0	..	0.07[10]	..	7.2	..	32.1	10.9	0.13	4.1	0.09	2.9	0.24	7.4
2006	33.6	11.3	17.8	530	13.5[p]	..	0.56	..	6.9	..	31.1	10.5	0.14	4.1	0.09	2.8	0.23	6.9
2007	34.4	11.5	18.5	538	12.8[p]	..	0.29	..	6.7[p]	..	32.1	10.8	0.18	5.3	0.12	3.4	0.25	7.3
2006 March	8.1	11.1	4.2	520	1.4[p]	..	0.16	..	1.8	..	8.7	11.9	0.03	3.1	0.02	2.0	0.06	7.0
June	8.3	11.2	4.3	523	3.8[p]	..	0.15	..	1.7	..	7.6	10.3	0.03	4.1	0.02	2.4	0.05	6.3
Sept	8.8	11.8	4.8	543	6.1[p]	..	0.16	..	1.7	..	7.2	9.7	0.04	4.0	0.03	3.1	0.07	7.7
Dec	8.4	11.2	4.5	535	2.2[p]	..	0.09	..	1.7	..	7.5	10.1	0.04	5.1	0.03	3.6	0.06	6.6
2007 March	8.1	11.0	4.3	536	1.3[p]	..	0.06	..	1.8[p]	..	8.8	11.9[p]	0.05	6.3	0.03	3.7	0.07	9.0
June	8.5	11.4	4.5	530	3.6[p]	..	0.10	..	1.8[p]	..	7.9	10.6[p]	0.04	4.5	0.02	2.8	0.06	6.8
Sept	9.1	12.1	4.9	541	5.7[p]	..	0.08	..	1.7[p]	..	7.3	9.7[p]	0.04	4.4	0.03	2.8	0.05	5.7
Dec	8.7	11.6	4.8	547	2.2[p]	..	0.06	..	1.4[p]	..	8.3	11.0[p]	0.05	6.1	0.04	4.1	0.07	7.9
2008 March	8.7[p]	11.8[p]	4.8[p]	552[p]	..	..	0.06[p]	..	1.6[p]	..	8.6[p]	11.5[p]	0.04[p]	4 1[p]	0.03[p]	3.0[p]	0.06[p]	6.8[p]
June	9.0[p]	12.0[p]	5.0[p]	555[p]	..	..	0.07[p]	..	1.5[p]	..	7.7[p]	10.4[p]	0.04[p]	4.3[p]	0.03[p]	3.3[p]	0.06[p]	6.5[p]
Sept	9.2[p]	12.2[p]	5.1[p]	556[p]	..	..	..	..	..	..	7.3[p]	9.6[p]	0.04[p]	3.8[p]	0.03[p]	2.9[p]	0.06[p]	6.2[p]
Scotland																		
1976	64.9	12.5	6.0	93	37.5	53.8	:	:	8.1	6.5	65.3	12.5	0.96	14.8	0.67	10.3	1.20	18.3
1981	69.1	13.4	8.5	122	36.2	47.5	:	:	9.9	8 0	63.8	12.3	0.78	11.3	0.47	6.9	0.81	11.6
1986	65.8	12.9	13.6	206	35.8	42.9	:	:	12.8	10.7	63.5	12.4	0.58	8.8	0.34	5.2	0.67	10.2
1991	67.0	13.2	19.5	291	33.8	39.0	:	:	12.4	10.6	61.0	12.0	0.47	7.1	0.29	4.6	0.58	8.6
1996	59.3	11.6	21.4	360	30.2	33.2	:	:	12.3	10.9	60.7	11.9	0.37	6.2	0.23	3.9	0.55	9.2
1999	55.1	10.9	22.7	412	29.9	31.5	:	:	11.9	10.9	60.3	11.9	0.28	5.0	0.18	3.3	0.42	7.6
2000	53.1	10.5	22.6	426	30.4	31.6	:	:	11.1	10.3	57.8	11.4	0.31	5.7	0.21	4.0	0.45	8.4
2001	52.5	10.4	22.8	433	29.6	31.0	:	:	10.6	9.7	57.4	11.3	0.29	5.5	0.20	3.8	0.45	8.5
2002	51.3	10.1	22.5	440	29.8	30.8	:	:	10.8	10.0	58.1	11.5	0.27	5.3	0.16	3.2	0.39	7.6
2003	52.4	10.4	23.9	455	30.8	31.3	:	:	10.1	10.2	58.5	11.6	0.27	5.1	0.18	3.4	0.42	8.0
2004	54.0	10.6	25.2	467	32.2	32.1	:	:	11.2	10.5	56.2	11.1	0.27	4.9	0.17	3.1	0.44	8.1
2005	54.4	10.7	25.6	471	30.9	30.3	0.08[10]	2.5[10]	10.9	10.3	55.7	11.0	0.28	5.2	0.19	3.5	0.42	7.7
2006	55.7	10.9	26.6	477	29.9	28.7	1.05	1.0	13.0	12.3	55.1	10.8	0.25	4.5	0.17	3.1	0.42	7.4
2007	57.8	11.2	28.4	491	29.9	28.1	0.69	0.6	12.8	12.2	56.0	10.9[p]	0.27	4.7	0.19	3.2	0.45	7.8
2006 March	13.6	10.8	6.6	487	3.5	13.6	0.26	1.0	2.6	10.1	14.9	11.8	0.05	3.7	0.03	2.4	0.09	6.7
June	14.0	11.0	6.7	475	8.3	32.1	0.32	1.2	3.1	11.7	13.9	10.9	0.07	5.0	0.05	3.3	0.09	6.4
Sept	14.2	11.0	6.7	471	12.2	46.4	0.28	1.1	3.6	13.4	12.7	9.8	0.05	3.8	0.04	2.9	0.11	7.8
Dec	13.9	10.8	6.6	477	5.9	22.4	0.19	0.7	3.7	14.1	13.6	10.6	0.07	5.3	0.04	3.7	0.12	8.7
2007 March	14.2	11.2	7.1	501	3.3	12.7	0.11	0.4	3.3	12.8	15.8	12.5	0.07	4.9	0.05	3.6	0.12	8.1
June	14.3	11.1	6.9	482	8.1	30.7	0.18	0.7	3.3	12.7	13.4	10.4	0.08	5.3	0.05	3.4	0.12	8.6
Sept	14.9	11.5	7.2	485	12.6	47.1	0.25	0.9	3.0	11.4	12.6	9.7	0.07	4.6	0.05	3.0	0.11	7.1
Dec	14.4	11.1	7.1	497	5.8	21.6	0.15	0.6	3.1	11.7	14.2	10.9	0.06	3.9	0.04	2.9	0.11	7.5
2008 March	15.1[p]	11.8[p]	7.7[p]	510[p]	3.4[p]	13.0[p]	0.10[p]	0.4[p]	..	..	15.1[p]	11.8[p]	0.06[p]	3.9[p]	0.04[p]	2.8[p]	0.11[p]	7.0[p]
June	14.9[p]	11.6[p]	7.3[p]	488[p]	7.9[p]	29.9[p]	0.11[p]	0.4[p]	..	..	13.5[p]	10.5[p]	0.06[p]	4.0[p]	0.04[p]	2.5[p]	0.11[p]	7.5[p]
Sept	15.5[p]	12.1[p]	7.7[p]	498[p]	11.9[p]	44.5[p]	0.20[p]	0.7[p]	..	..	12.6[p]	9.7[p]	0.07[p]	4.8[p]	0.05[p]	3.4[p]	0.11[p]	6.9[p]
Northern Ireland																		
1976	26.4	17.3	1.3	50	9.9	..	:	:	0.6	..	17.0	11.2	0.48	18.3	0.35	13.3	0.59	22.3
1981	27.2	17.6	1.9	70	9.6	45.4	:	:	1.4	4.2	16.3	10.6	0.36	13.2	0.23	8.3	0.42	15.3
1986	28.0	17.8	3.6	128	10.2	..	:	:	1.5	..	16.1	10.3	0.36	13.2	0.23	8.3	0.42	15.3
1991	26.0	16.2	5.3	203	9.2	..	:	:	2.3	..	15.1	9.4	0.19	7.4	0.12	4.6	0.22	8.4
1996	24.4	14.7	6.3	260	8.3	..	:	:	2.3	..	15.2	9.2	0.14	5.8	0.09	3.7	0.23	9.4
1999	23.0	13.7	7.0	303	7.6	..	:	:	2.3	..	15.7	9.3	0.15	6.4	0.11	4.8	0.23	10.0
2000	21.5	12.8	6.8	318	7.6	..	:	:	2.4	..	14.9	8.9	0.11	5.0	0.08	3.8	0.16	7.2
2001	22.0	13.0	7.1	325	7.3	..	:	:	2.4	..	14.5	8.6	0.13	6.0	0.10	4.5	0.19	8.4
2002	21.4	12.6	7.2	335	7.6	..	:	:	2.2	..	14.6	8.6	0.10	4.6	0.07	3.5	0.19	8.7
2003	21.6	12.7	7.4	344	7.8	..	:	:	2.3	..	14.5	8.5	0.12	5.2	0.09	4.0	0.18	8.0
2004	22.3	13.0	7.7	345	8.3	..	:	:	2.5	..	14.4	8.4	0.12	5.5	0.08	3.7	0.19	8.0
2005	22.3	12.9	8.1	363	8.1	..	0.01[10]	..	2.4	..	14.2	8.3	0.14	6.1	0.11	4.9	0.19	8.1
2006	23.3	13.4	8.8	380	8.3	..	0.12	..	2.6	..	14.5	8.4	0.12	5.1	0.09	3.8	0.17	6.9
2007	24.5	13.9	9.3	379	8.7	..	0.11[p]	..	2.9[p]	..	14.6	8.3	0.12	4.9	0.08	3.2	0.17	6.9
2006 March	5.8	13.6	2.2	370	0.9	..	0.03	..	0.7	..	4.0	9.4	0.03	5.2	0.02	3.2	0.04	6.7
June	5.8	13.3	2.2	381	2.3	..	0.04	..	0.7	..	3.6	8.4	0.03	4.6	0.02	3.6	0.04	7.3
Sept	6.1	13.9	2.3	358	3.5	..	0.03	..	0.5	..	3.4	7.8	0.03	4.8	0.02	3.5	0.05	7.4
Dec	5.6	12.8	2.2	393	1.5	..	0.02	..	0.6	..	3.5	7.9	0.03	5.8	0.03	4.9	0.04	6.3
2007 March	6.1	14.2	2.4	383	1.0	..	0.02	..	0.9	..	4.2	9.7	0.04	6.7	0.03	4.6	0.05	7.6
June	6.0	13.7	2.2	365	2.4	..	0.03	..	0.7	..	3.6	8.2	0.03	5.1	0.02	2.9	0.04	6.7
Sept	6.5	14.5	2.5	386	3.8	..	0.04	..	0.7	..	3.3	7.3	0.03	4.6	0.02	3.2	0.05	7.0
Dec	5.9	13.2	2.2	380	1.6	..	0.02	..	0.6	..	3.6	8.1	0.02	3.3	0.01	2.2	0.04	6.5
2008 March	6.5[p]	14.8[p]	2.4[p]	396[p]	1.1[p]	..	0.02[p]	..	..	..	4.1[p]	9.4[p]	0.03[p]	4.6[p]	0.03[p]	3.9[p]	0.05[p]	7.3[p]
June	6.3[p]	14.3[p]	2.4[p]	384[p]	2.2[p]	..	0.02[p]	..	..	..	3.6[p]	8.2[p]	0.03[p]	4.7[p]	0.02[p]	3.6[p]	0.04[p]	6.6[p]
Sept	6.5[p]	14.4[p]	2.5[p]	386[p]	3.6[p]	..	0.02[p]	..	..	..	3.4[p]	7.7[p]	0.03[p]	3.8[p]	0.02[p]	2.7[p]	0.05[p]	7.5[p]

1 Per 1,000 population of all ages.
2 Per 1,000 live births.
3 Persons marrying per 1,000 unmarried population aged 16 and over.
4 Persons forming a civil partnership per 1,000 unmarried population aged 16 and over.
5 Persons divorcing per 1,000 married population.
6 Deaths under 1 year.
7 Deaths under 4 weeks.
8 Stillbirths and deaths under 1 week.
9 Per 1,000 live births and stillbirths.
10 The Civil Partnership Act 2004 came into force on 5 December 2005 in the UK - see Notes to tables.
p provisional

Table 2.2 Key demographic and health indicators

Constituent countries of the United Kingdom

Numbers (thousands), rates, percentages, mean age

Year and quarter	Population	Live births	Deaths	Dependency ratio		Live births				Age-standardised mortality rate[6]	Period expectation of life (in years) at birth[7]		Infant mortality rate[8]
				Children[1]	Elderly[2]	TFR[3]	Standardised mean age of mother at birth (years)[4]	Unstandardised mean age of mother at birth (years)[5]	Outside marriage as percentage of total live births		Males	Females	
United Kingdom													
1976	56,216.1	675.5	680.8	42.1	29.5	1.74	26.7	26.4	*9.0*	10,486	..	..	14.5
1981	56,357.5	730.7	658.0	37.1	29.7	1.82	27.0	26.8	*12.5*	9,506	70.8	76.8	11.2
1986	56,683.8	754.8	660.7	33.5	29.7	1.78	27.4	27.0	*20.4*	8,914	71.9	77.7	9.5
1991	57,438.7	792.3	646.2	33.2	30.0	1.82	27.7	27.7	*29.8*	8,168	73.2	78.7	7.4
1996	58,164.4	733.2	636.0	33.9	30.0	1.73	28.2	28.6	*35.5*	7,584	74.2	79.4	6.1
2001	59,113.5	669.1	602.3	32.6	29.8	1.63	28.6	29.2	*40.1*	6,807	75.6	80.4	5.5
2002	59,323.5	668.8	606.2	32.2	29.8	1.64	28.7	29.3	*40.6*	6,765	75.9	80.5	5.2
2003	59,557.3	695.6	612.0	31.8	29.9	1.71	28.8	29.4	*41.5*	6,758	76.2	80.7	5.3
2004	59,845.8	716.0	583.1	31.4	30.0	1.77	28.9	29.4	*42.3*	6,394	76.5	80.9	5.0
2005	60,238.4	722.5	582.7	31.0	30.0	1.78	29.1	29.5	*42.9*	6,268	76.9	81.3	5.1
2006	60,587.3	748.6	572.2	30.6	30.1	1.84	29.1	29.5	*43.7*	6,067	77.2	81.5	5.0
2007	60,975.4	772.2	574.7	30.4	30.5	1.90	29.3	29.5	*44.4*	5,966	..	..	4.7
England													
1976	46,659.9	550.4	560.3	41.4	29.7	1.70	26.5	26.4	*9.2*	10,271	..	..	14.2
1981	46,820.8	598.2	541.0	36.4	29.9	1.79	27.0	26.8	*12.9*	9,298	71.1	77.0	10.9
1986	47,187.6	623.6	544.5	33.1	29.8	1.76	27.4	27.0	*21.4*	8,725	72.2	77.9	9.5
1991	47,875.0	660.8	534.0	32.9	30.0	1.81	27.7	27.7	*30.1*	8,017	73.4	78.9	7.3
1996	48,519.1	614.2	524.0	33.7	30.0	1.73	28.2	28.7	*35.5*	7,414	74.5	79.6	6.1
2001	49,449.7	563.7	496.1	32.5	29.7	1.63	28.6	29.3	*39.6*	6,650	75.9	80.6	5.4
2002	49,652.3	565.7	499.1	32.1	29.7	1.65	28.7	29.4	*40.1*	6,603	76.1	80.7	5.2
2003	49,866.2	589.9	503.4	31.8	29.8	1.73	28.9	29.4	*40.9*	6,602	76.5	80.9	5.3
2004	50,110.7	607.2	479.2	31.4	29.8	1.78	29.0	29.5	*41.7*	6,232	76.8	81.1	5.0
2005	50,465.6	613.0	479.4	30.9	29.9	1.79	29.1	29.5	*42.3*	6,110	77.2	81.5	5.0
2006	50,762.9	635.7	470.3	30.6	29.9	1.86	29.2	29.5	*43.0*	5,916	77.5	81.7	5.0
2007	51,092.0	655.4	470.7	30.4	30.3	1.92	29.3	29.6	*43.8*	5,792	..	..	4.8
Wales													
1976	2,799.3	33.4	36.3	42.0	30.9	1.78	26.2	26.0	*8.6*	10,858	..	..	13.7
1981	2,813.5	35.8	35.0	37.6	31.6	1.87	26.7	26.6	*11.2*	9,846	70.4	76.4	12.6
1986	2,810.9	37.0	34.7	34.3	32.5	1.86	26.9	26.5	*21.1*	9,043	71.6	77.5	9.5
1991	2,873.0	38.1	34.1	34.4	33.5	1.88	27.1	27.0	*32.3*	8,149	73.1	78.8	6.6
1996	2,891.3	34.9	34.6	34.9	33.7	1.81	27.5	27.8	*41.2*	7,758	73.8	79.1	5.6
2001	2,910.2	30.6	33.0	33.7	33.6	1.66	27.8	28.3	*48.3*	7,017	75.3	80.0	5.4
2002	2,919.8	30.2	33.2	33.3	33.7	1.64	28.0	28.4	*49.7*	6,953	75.5	80.1	4.5
2003	2,931.1	31.4	33.7	32.8	33.8	1.73	28.1	28.5	*50.3*	6,984	75.8	80.3	4.3
2004	2,946.4	32.3	32.1	32.3	33.9	1.78	28.2	28.5	*51.3*	6,588	76.1	80.6	4.9
2005	2,953.6	32.6	32.1	31.8	34.1	1.81	28.4	28.5	*52.4*	6,442	76.6	80.9	4.1
2006	2,965.9	33.6	31.1	31.4	34.3	1.86	28.5	28.6	*53.0*	6,190	76.7	81.1	4.1
2007	2,980.0	34.4	32.1	31.0	34.9	1.90	28.6	28.6	*53.8*	6,307	..	..	5.3
Scotland													
1976	5,233.4	64.9	65.3	44.7	28.4	1.79	26.4	26.0	*9.3*	11,675	..	..	14.8
1981	5,180.2	69.1	63.8	38.2	28.4	1.84	26.8	26.3	*12.2*	10,849	69.1	75.3	11.3
1986	5,111.8	65.8	63.5	33.6	28.1	1.67	27.1	26.6	*20.6*	10,120	70.2	76.2	8.8
1991	5,083.3	67.0	61.0	32.4	28.9	1.69	27.5	27.4	*29.1*	9,216	71.4	77.1	7.1
1996	5,092.2	59.3	60.7	32.3	29.2	1.56	28.0	28.5	*36.0*	8,791	72.2	77.9	6.2
2001	5,064.2	52.5	57.4	30.8	30.0	1.49	28.5	29.2	*43.3*	7,930	73.3	78.8	5.5
2002	5,054.8	51.3	58.1	30.3	30.2	1.48	28.6	29.2	*44.0*	7,955	73.5	78.9	5.3
2003	5,057.4	52.4	58.5	29.9	30.3	1.54	28.7	29.3	*45.5*	7,921	73.8	79.1	5.1
2004	5,078.4	54.0	56.2	29.5	30.5	1.60	28.9	29.4	*46.7*	7,536	74.2	79.3	4.9
2005	5,094.8	54.4	55.7	29.1	30.6	1.62	29.0	29.5	*47.1*	7,349	74.6	79.6	5.2
2006	5,116.9	55.7	55.1	28.7	30.6	1.67	29.1	29.5	*47.7*	7,161	74.8	79.7	4.5
2007	5,144.2	57.8	56.0	28.4	31.0	1.73	29.2	29.4	*49.1*	7,150	..	..	4.7
Northern Ireland													
1976	1,523.5	26.4	17.0	56.1	25.3	2.68	27.8	27.4	*5.0*	11,746	..	..	18.3
1981	1,543.0	27.2	16.3	50.6	25.3	2.59	28.1	27.5	*7.0*	10,567	69.2	75.5	13.2
1986	1,573.5	28.0	16.1	46.1	25.5	2.45	28.1	27.5	*12.8*	10,071	70.9	77.1	13.2
1991	1,607.3	26.0	15.1	44.1	26.1	2.16	28.3	28.0	*20.3*	8,303	72.6	78.4	7.4
1996	1,661.8	24.4	15.2	41.8	25.5	1.95	28.7	28.8	*26.0*	7,742	73.8	79.2	5.8
2001	1,689.3	22.0	14.5	38.6	25.5	1.80	29.1	29.4	*32.5*	6,976	75.2	80.1	6.1
2002	1,696.6	21.4	14.6	37.9	25.7	1.77	29.2	29.5	*33.5*	6,930	75.6	80.4	4.7
2003	1,702.6	21.6	14.5	37.2	25.9	1.81	29.2	29.5	*34.4*	6,743	75.8	80.6	5.3
2004	1,710.3	22.3	14.4	36.4	26.2	1.87	29.4	29.7	*34.5*	6,609	76.0	80.8	5.5
2005	1,724.4	22.3	14.2	35.8	26.3	1.87	29.5	29.7	*36.3*	6,418	76.1	81.0	6.3
2006	1,741.6	23.3	14.5	35.3	26.4	1.94	29.6	29.7	*38.0*	6,397	76.2	81.2	5.1
2007	1,759.1	24.5	14.6	34.9	26.6	2.02	29.8	29.8	*37.9*	6,321	..	..	4.9

Note: Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2005. Death figures for 2006 onwards relate to registrations.
Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales (apart from life expectancy figures – where those occurring in England and Wales are assigned to England). These events are, however, included in the total for the United Kingdom. From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.

1 Percentage of children under 16 to working-age population (males 16–64 and females 16–59).
2 Percentage of males 65 and over and females 60 and over to working-age population (males 16–64 and females 16–59).
3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).
4 Standardised to take account of the age structure of the population.
5 Unstandardised and therefore takes no account of the age structure of the population.
6 Per million population. The age-standardised mortality rate makes allowances for changes in the age structure of the population. See Notes to tables.
7 All countries: figures for all years based on registered deaths. A minor methodological change was introduced for the 2006 figures to ensure consistency with population estimates of the very elderly for England and Wales. The effect on calculated life expectancies is marginal.
8 Deaths at age under one year per 1,000 live births.
p provisional

Table 3.1 Live births: age of mother

England and Wales

Numbers (thousands), rates, mean age and TFRs

Year and quarter	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean age[1] (years)	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean age[2] (years)	TFR[3]
	Total live births (numbers)								Age-specific fertility rates[4]								
1961	811.3	59.8	249.8	248.5	152.3	77.5	23.3	27.6	89.2	37.3	172.6	176.9	103.1	48.1	15.0	27.4	2.77
1964(max)	876.0	76.7	276.1	270.7	153.5	75.4	23.6	27.2	92.9	42.5	181.6	187.3	107.7	49.8	13.7	27.3	2.93
1966	849.8	86.7	285.8	253.7	136.4	67.0	20.1	26.8	90.5	47.7	176.0	174.0	97.3	45.3	12.5	27.1	2.75
1971	783.2	82.6	285.7	247.2	109.6	45.2	12.7	26.2	83.5	50.6	152.9	153.2	77.1	32.8	8.7	26.6	2.37
1976	584.3	57.9	182.2	220.7	90.8	26.1	6.5	26.4	60.4	32.2	109.3	118.7	57.2	18.6	4.8	26.5	1.71
1977(min)	569.3	54.5	174.5	207.9	100.8	25.5	6.0	26.5	58.1	29.4	103.7	117.5	58.6	18.2	4.4	26.6	1.66
1981	634.5	56.6	194.5	215.8	126.6	34.2	6.9	26.8	61.3	28.1	105.3	129.1	68.6	21.7	4.9	27.0	1.79
1986	661.0	57.4	192.1	229.0	129.5	45.5	7.6	27.0	60.6	30.1	92.7	123.8	78.0	24.6	4.8	27.4	1.77
1991	699.2	52.4	173.4	248.7	161.3	53.6	9.8	27.7	63.6	33.0	89.3	119.4	86.7	32.1	5.3	27.7	1.82
1992	689.7	47.9	163.3	244.8	166.8	56.7	10.2	27.9	63.6	31.7	86.1	117.6	87.4	33.4	5.8	27.8	1.80
1993	673.5	45.1	152.0	236.0	171.1	58.8	10.5	28.1	62.7	30.9	82.5	114.4	87.4	34.1	6.2	27.9	1.76
1994	664.7	42.0	140.2	229.1	179.6	63.1	10.7	28.4	62.0	28.9	79.0	112.2	89.4	35.8	6.4	28.1	1.75
1995	648.1	41.9	130.7	217.4	181.2	65.5	11.3	28.5	60.5	28.5	76.4	108.4	88.3	36.3	6.8	28.2	1.72
1996	649.5	44.7	125.7	211.1	186.4	69.5	12.1	28.6	60.6	29.7	77.0	106.6	89.8	37.5	7.2	28.2	1.74
1997	643.1	46.4	118.6	202.8	187.5	74.9	12.9	28.8	60.0	30.2	76.0	104.3	89.8	39.4	7.6	28.3	1.73
1998	635.9	48.3	113.5	193.1	188.5	78.9	13.6	28.9	59.2	30.9	74.9	101.5	90.6	40.4	7.9	28.3	1.72
1999	621.9	48.4	110.7	181.9	185.3	81.3	14.3	29.0	57.8	30.9	73.0	98.3	89.6	40.6	8.1	28.4	1.70
2000	604.4	45.8	107.7	170.7	180.1	85.0	15.1	29.1	55.9	29.3	70.0	94.3	87.9	41.4	8.3	28.5	1.65
2001	594.6	44.2	108.8	159.9	178.9	86.5	16.3	29.2	54.7	28.0	69.0	91.7	88.0	41.5	8.8	28.6	1.63
2002	596.1	43.5	110.9	153.4	180.5	90.5	17.3	29.3	54.7	27.1	69.1	91.5	89.9	43.0	9.1	28.7	1.65
2003	621.5	44.2	116.6	156.9	187.2	97.4	19.1	29.4	56.8	26.9	71.3	95.8	94.9	46.4	9.8	28.8	1.73
2004	639.7	45.1	121.1	160.0	190.6	102.2	20.8	29.4	58.2	26.9	72.8	97.6	99.6	48.8	10.4	28.9	1.78
2005	645.8	44.8	122.1	164.3	188.2	104.1	22.2	29.5	58.3	26.3	71.6	97.9	100.7	50.3	10.8	29.1	1.79
2006	669.6	45.5	127.8	172.6	189.4	110.5	23.7	29.5	60.2	26.6	73.2	100.6	104.8	53.8	11.4	29.1	1.86
2007	690.0	44.8	130.8	182.6	191.1	115.4	25.4	29.5	62.0	26.0	73.5	104.0	110.2	56.9	12.0	29.3	1.92
2003 March	147.4	10.9	27.9	37.5	44.0	22.6	4.6	29.3	54.7	26.8	69.1	92.8	90.5	43.7	9.6	28.8	1.66
June	155.1	10.7	28.5	39.3	47.4	24.5	4.7	29.5	56.9	26.0	70.0	96.4	96.4	46.9	9.6	28.9	1.73
Sept	162.8	11.5	30.5	41.0	49.3	25.6	5.0	29.4	59.1	27.7	74.0	99.4	99.2	48.3	10.1	28.9	1.79
Dec	156.0	11.2	29.7	39.1	46.5	24.6	4.8	29.4	56.6	27.1	72.1	94.6	93.6	46.5	9.8	28.8	1.72
2004 March	155.2	11.0	29.3	38.7	46.6	24.7	4.9	29.4	56.8	26.5	70.8	95.0	97.9	47.4	9.8	28.9	1.74
June	157.4	10.7	29.3	39.4	47.7	25.2	5.0	29.5	57.6	25.7	70.9	96.6	100.4	48.5	10.1	29.0	1.76
Sept	165.4	11.7	31.4	41.6	49.0	26.3	5.4	29.4	59.9	27.7	75.0	101.0	102.0	50.1	10.7	28.9	1.83
Dec	161.7	11.6	31.1	40.3	47.2	26.0	5.5	29.4	58.5	27.6	74.3	97.7	98.2	49.4	10.9	28.9	1.79
2005 March	154.3	10.9	29.3	38.9	45.0	24.7	5.4	29.4	56.5	26.0	69.6	94.0	97.6	48.5	10.7	29.0	1.74
June	159.8	10.7	29.6	40.3	47.5	26.2	5.4	29.5	57.8	25.3	69.7	96.2	101.9	50.8	10.6	29.1	1.78
Sept	170.2	11.9	32.5	43.7	49.4	26.9	5.7	29.4	60.9	27.6	75.7	103.2	104.9	51.6	11.1	29.0	1.88
Dec	161.7	11.3	30.7	41.4	46.3	26.3	5.7	29.4	57.9	26.3	71.3	97.9	98.3	50.4	11.0	29.0	1.78
2006 March	159.5	11.1	30.5	40.7	45.3	26.3	5.6	29.5	58.2	26.3	70.9	96.1	101.6	52.0	11.0	29.1	1.79
June	166.2	11.4	31.2	42.9	47.6	27.1	5.9	29.5	60.0	26.6	71.8	100.4	105.7	53.0	11.3	29.1	1.85
Sept	174.9	12.0	33.5	45.6	49.0	28.9	6.0	29.4	62.4	27.7	76.1	105.4	107.5	55.9	11.4	29.1	1.93
Dec	169.0	11.1	32.6	43.5	47.5	28.1	6.2	29.5	60.3	25.7	74.0	100.5	104.3	54.4	11.8	29.2	1.86
2007 March	164.0	10.9	31.1	42.7	45.7	27.4	6.2	29.5	59.8	25.5	70.9	98.6	106.9	54.8	12.0	29.3	1.85
June	169.5	10.7	31.4	44.6	47.8	28.9	6.2	29.6	61.1	25.0	70.8	101.9	110.5	57.1	11.8	29.4	1.89
Sept	181.4	11.9	34.6	48.6	50.0	29.9	6.4	29.5	64.7	27.3	77.1	109.9	114.4	58.6	12.0	29.2	2.00
Dec	175.0	11.3	33.7	46.6	47.6	29.2	6.6	29.5	62.4	26.1	75.0	105.4	108.9	57.1	12.4	29.3	1.93
2008 March	173.8[p]	11.1[p]	33.5[p]	46.7[p]	47.2[p]	28.8[p]	6.4[p]	29.5[p]	62.6[p]	26.2[p]	73.7[p]	103.3[p]	110.7[p]	58.2[p]	12.3[p]	29.3[p]	1.92[p]
June	176.8[p]	11.0[p]	33.4[p]	48.3[p]	48.3[p]	29.2[p]	6.6[p]	29.5[p]	63.7[p]	25.9[p]	73.5[p]	107.0[p]	113.4[p]	58.9[p]	12.6[p]	29.4[p]	1.96[p]
Sept	182.0[p]	11.4[p]	35.0[p]	50.3[p]	49.2[p]	29.4[p]	6.7[p]	29.5[p]	64.9[p]	26.6[p]	76.1[p]	110.0[p]	114.2[p]	58.8[p]	12.8[p]	29.3[p]	1.99[p]

Note: The rates for women of all ages, under 20, and 40 and over are based upon the populations of women aged 15–44, 15–19, and 40–44 respectively.
Rates for 2008 are based on 2006-based population projections for 2008.

1 Unstandardised and therefore takes no account of the age structure of the population.

2 Standardised to take account of the age structure of the population. This measure is more appropriate for use when analysing trends or making comparisons between different geographies.

3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).

4 Births per 1,000 women in the age-group; all quarterly age-specific fertility rates are adjusted for days in the quarter. They are not adjusted for seasonality.

p provisional.

Table 3.2 Live births outside marriage: age of mother and type of registration

England and Wales

Numbers (thousands), mean age and percentages

Year and quarter	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean age[1] (years)	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Registration[2]: Joint: Same[3] address	Joint: Different[3] address	Sole
	Live births outside marriage (numbers)								Percentage of total live births in age group							As a percentage of all births outside marriage		
1971	65.7	21.6	22.0	11.5	6.2	3.2	1.1	23.7	*8.4*	*26.1*	*7.7*	*4.7*	*5.7*	*7.0*	*9.0*	*45.5*		*54.5*
1976	53.8	19.8	16.6	9.7	4.7	2.3	0.7	23.3	*9.2*	*34.2*	*9.1*	*4.4*	*5.2*	*8.6*	*10.1*	*51.0*		*49.0*
1981	81.0	26.4	28.8	14.3	7.9	1.3	0.9	23.4	*12.8*	*46.7*	*14.8*	*6.6*	*6.2*	*3.9*	*12.5*	*58.2*		*41.8*
1986	141.3	39.6	54.1	27.7	13.1	5.7	1.1	23.8	*21.4*	*69.0*	*28.2*	*12.1*	*10.1*	*12.6*	*14.7*	*46.6*	*19.6*	*33.8*
1991	211.3	43.4	77.8	52.4	25.7	9.8	2.1	24.8	*30.2*	*82.9*	*44.9*	*21.1*	*16.0*	*18.3*	*21.3*	*54.6*	*19.8*	*25.6*
1992	215.2	40.1	77.1	55.9	28.9	10.9	2.3	25.2	*31.2*	*83.7*	*47.2*	*22.8*	*17.3*	*19.3*	*22.9*	*55.4*	*20.7*	*23.9*
1993	216.5	38.2	75.0	57.5	31.4	11.9	2.5	25.5	*32.2*	*84.8*	*49.4*	*24.4*	*18.4*	*20.2*	*23.5*	*54.8*	*22.0*	*23.2*
1994	215.5	35.9	71.0	58.5	34.0	13.4	2.7	25.8	*32.4*	*85.5*	*50.6*	*25.5*	*18.9*	*21.2*	*25.2*	*57.5*	*19.8*	*22.7*
1995	219.9	36.3	69.7	59.6	37.0	14.4	3.0	26.0	*33.9*	*86.6*	*53.3*	*27.4*	*20.4*	*22.0*	*26.2*	*58.1*	*20.1*	*21.8*
1996	232.7	39.3	71.1	62.3	40.5	16.2	3.2	26.1	*35.8*	*88.0*	*56.5*	*29.5*	*21.7*	*23.4*	*26.7*	*58.1*	*19.9*	*21.9*
1997	238.2	41.1	69.5	63.4	42.2	18.2	3.7	26.2	*37.0*	*88.7*	*58.6*	*31.3*	*22.5*	*24.3*	*28.6*	*59.5*	*19.3*	*21.2*
1998	240.6	43.0	67.8	62.4	43.9	19.6	3.9	*26.3*	*37.8*	*89.1*	*59.7*	*32.3*	*23.3*	*24.8*	*29.0*	*60.9*	*18.3*	*20.8*
1999	241.9	43.0	67.5	61.2	45.0	20.8	4.3	*26.4*	*38.9*	*89.0*	*61.0*	*33.6*	*24.3*	*25.6*	*30.2*	*61.8*	*18.2*	*19.9*
2000	238.6	41.1	67.5	59.1	43.9	22.3	4.7	*26.5*	*39.5*	*89.7*	*62.6*	*34.6*	*24.4*	*26.2*	*31.0*	*62.7*	*18.2*	*19.2*
2001	238.1	39.5	68.1	56.8	45.2	23.3	5.1	26.7	*40.0*	*89.5*	*62.6*	*35.5*	*25.3*	*26.9*	*31.6*	*63.2*	*18.4*	*18.4*
2002	242.0	38.9	70.2	55.8	46.4	25.1	5.6	26.8	*40.6*	*89.5*	*63.3*	*36.4*	*25.7*	*27.7*	*32.2*	*63.7*	*18.5*	*17.8*
2003	257.2	39.9	75.7	58.2	49.2	27.8	6.4	26.9	*41.4*	*90.2*	*64.9*	*37.1*	*26.3*	*28.5*	*33.3*	*63.5*	*19.0*	*17.4*
2004	269.7	41.0	79.8	61.4	50.7	29.7	7.1	27.0	*42.2*	*91.0*	*65.9*	*38.4*	*26.6*	*29.0*	*34.0*	*63.6*	*19.6*	*16.8*
2005	276.5	41.2	82.1	64.4	50.8	30.3	7.7	27.0	*42.8*	*91.8*	*67.2*	*39.2*	*27.0*	*29.1*	*34.8*	*63.5*	*20.2*	*16.3*
2006	291.4	42.3	87.7	69.3	51.4	32.2	8.4	27.0	*43.5*	*93.0*	*68.6*	*40.1*	*27.1*	*29.2*	*35.5*	*63.7*	*20.8*	*15.6*
2007	305.6	41.7	91.9	76.0	53.0	34.0	9.0	27.1	*44.3*	*93.1*	*70.3*	*41.6*	*27.7*	*29.5*	*35.5*	*65.0*	*20.1*	*15.0*
2002 March	58.0	9.4	16.7	13.6	10.9	6.0	1.3	26.8	*40.5*	*89.4*	*63.0*	*36.4*	*25.4*	*27.7*	*31.5*	*63.2*	*18.5*	*18.3*
June	58.3	9.3	16.6	13.5	11.4	6.1	1.4	26.8	*39.6*	*89.4*	*62.2*	*35.6*	*25.0*	*27.2*	*31.7*	*64.2*	*18.2*	*17.7*
Sept	63.4	10.2	18.4	14.6	12.3	6.5	1.5	26.8	*40.9*	*89.3*	*63.8*	*36.6*	*26.1*	*27.9*	*32.7*	*63.9*	*18.5*	*17.5*
Dec	62.3	10.0	18.4	14.1	11.9	6.5	1.5	26.8	*41.4*	*89.7*	*64.1*	*36.9*	*26.4*	*28.0*	*32.8*	*63.3*	*18.9*	*17.8*
2003 March	61.0	9.8	18.0	13.9	11.6	6.3	1.5	26.8	*41.4*	*90.1*	*64.5*	*37.0*	*26.9*	*29.1*	*33.3*	*63.0*	*18.9*	*18.1*
June	62.8	9.6	18.3	14.2	12.2	6.9	1.6	27.0	*40.5*	*90.0*	*64.0*	*36.2*	*25.7*	*28.3*	*33.7*	*64.0*	*18.5*	*17.4*
Sept	67.6	10.3	20.0	15.3	13.0	7.3	1.7	26.9	*41.5*	*90.2*	*65.6*	*38.3*	*26.4*	*28.6*	*33.3*	*63.7*	*19.3*	*18.0*
Dec	65.8	10.2	19.5	14.9	12.5	7.3	1.6	26.9	*42.2*	*90.4*	*65.6*	*38.0*	*27.7*	*29.5*	*32.9*	*63.3*	*19.4*	*17.4*
2004 March	65.2	10.1	19.3	14.8	12.5	7.0	1.7	26.9	*42.0*	*91.2*	*65.8*	*38.2*	*26.8*	*28.2*	*34.3*	*63.1*	*19.4*	*17.4*
June	65.2	9.8	19.1	14.9	12.5	7.3	1.7	27.0	*41.4*	*91.0*	*65.1*	*37.7*	*26.2*	*28.8*	*34.5*	*63.9*	*19.5*	*16.6*
Sept	70.2	10.7	20.7	16.1	13.0	7.9	1.8	27.0	*42.4*	*91.2*	*66.1*	*38.6*	*26.5*	*30.0*	*33.5*	*63.7*	*19.7*	*16.6*
Dec	69.1	10.6	20.7	15.7	12.7	7.5	1.9	26.9	*42.7*	*90.6*	*66.6*	*39.0*	*27.0*	*29.0*	*33.9*	*63.6*	*19.8*	*16.6*
2005 March	66.3	10.1	19.6	15.2	12.2	7.3	1.9	27.0	*43.0*	*92.0*	*67.0*	*39.0*	*27.1*	*29.6*	*35.2*	*63.1*	*20.3*	*16.6*
June	66.6	9.8	19.7	15.4	12.5	7.4	1.8	27.0	*41.7*	*91.2*	*66.5*	*38.2*	*26.4*	*28.1*	*33.5*	*63.7*	*19.8*	*16.5*
Sept	73.7	10.9	22.1	17.3	13.4	7.9	2.1	26.9	*43.3*	*92.0*	*68.0*	*39.6*	*27.2*	*29.3*	*35.7*	*63.7*	*20.3*	*16.0*
Dec	69.9	10.4	20.7	16.5	12.6	7.7	2.0	27.0	*43.2*	*92.1*	*67.4*	*39.8*	*27.3*	*29.5*	*34.8*	*63.5*	*20.3*	*16.2*
2006 March	68.7	10.3	20.8	16.0	12.0	7.6	1.9	26.9	*43.1*	*93.1*	*68.1*	*39.4*	*26.5*	*28.9*	*34.4*	*63.1*	*20.9*	*16.0*
June	71.4	10.5	21.2	16.9	12.8	7.8	2.1	27.0	*43.0*	*92.6*	*68.0*	*39.4*	*26.9*	*28.8*	*35.0*	*63.7*	*20.6*	*15.6*
Sept	76.8	11.1	23.1	18.6	13.4	8.4	2.2	27.0	*43.9*	*92.8*	*69.0*	*40.7*	*27.3*	*29.2*	*36.9*	*64.1*	*20.5*	*15.4*
Dec	74.5	10.3	22.6	17.8	13.2	8.4	2.2	27.1	*44.1*	*93.3*	*69.2*	*40.9*	*27.8*	*29.8*	*35.7*	*63.6*	*21.0*	*15.4*
2007 March	72.5	10.2	21.7	17.6	12.6	8.2	2.2	27.1	*44.2*	*93.5*	*69.8*	*41.3*	*27.5*	*29.8*	*35.1*	*64.0*	*20.5*	*15.5*
June	73.5	9.9	21.8	18.3	13.0	8.3	2.2	27.1	*43.4*	*92.6*	*69.5*	*41.0*	*27.2*	*28.8*	*35.2*	*65.1*	*19.9*	*14.9*
Sept	80.8	11.1	24.4	20.4	13.9	8.8	2.2	27.0	*44.5*	*93.2*	*70.5*	*41.9*	*27.8*	*29.6*	*35.0*	*65.2*	*20.1*	*14.7*
Dec	78.7	10.6	24.0	19.7	13.5	8.7	2.4	27.1	*45.0*	*93.1*	*71.3*	*42.2*	*28.3*	*29.6*	*36.5*	*65.3*	*19.9*	*14.8*
2008 March	78.5[p]	10.5[p]	23.8[p]	20.0[p]	13.3[p]	8.6[p]	2.3[p]	27.1[p]	*45.2*[p]	*94.3*[p]	*71.1*[p]	*42.8*[p]	*28.3*[p]	*29.9*[p]	*35.8*[p]	*65.3*[p]	*20.0*[p]	*14.7*[p]
June	79.3[p]	10.3[p]	23.9[p]	20.5[p]	13.7[p]	8.6[p]	2.4[p]	27.1[p]	*44.9*[p]	*93.5*[p]	*71.4*[p]	*42.4*[p]	*28.4*[p]	*29.5*[p]	*35.9*[p]	*66.0*[p]	*19.8*[p]	*14.2*[p]
Sept	82.8[p]	10.7[p]	25.3[p]	21.6[p]	13.9[p]	8.9[p]	2.4[p]	27.0[p]	*45.5*[p]	*94.0*[p]	*72.3*[p]	*43.0*[p]	*28.2*[p]	*30.1*[p]	*36.2*[p]	*65.8*[p]	*20.5*[p]	*13.8*[p]

1 Unstandardised and therefore takes no account of the age structure of the population.
2 Births outside marriage can be registered by both the mother and father (joint) or by the mother alone (sole).
3 Usual address(es) of parents.
p provisional

Table 4.1 Conceptions: age of woman at conception

England and Wales (residents)

Numbers (thousands) and rates; and percentage terminated by abortion

Year and quarter	Age of woman at conception								
	All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
	(a) numbers (thousands)								
1991	853.7	7.5	40.1	101.6	233.3	281.5	167.5	57.6	12.1
1996	816.9	8.9	43.5	94.9	179.8	252.6	200.0	75.5	14.1
1999	774.0	7.9	42.0	98.8	157.6	218.5	197.1	86.0	16.0
2000	767.0	8.1	41.3	97.7	159.0	209.3	195.3	88.7	17.0
2001	763.7	7.9	41.0	96.0	161.6	199.3	196.7	92.2	17.8
2002	787.0	7.9	42.0	97.1	167.8	199.4	204.3	98.9	19.6
2003	806.8	8.0	42.2	98.6	175.3	199.8	209.0	103.1	20.9
2004	826.8	7.6	42.2	101.3	181.3	205.1	209.6	106.8	22.8
2005	841.8	7.9	42.3	102.3	185.5	211.3	209.2	110.0	23.6
2006	870.0	7.8	41.8	103.1	191.2	222.2	212.4	115.4	25.5
2007[1,P]	894.1	8.2	42.9	106.1	198.3	234.2	211.1	117.8	26.5
2004 March	207.9	2.0	10.9	26.2	45.9	51.1	52.6	26.6	5.6
June	200.1	1.9	10.6	25.0	43.7	49.3	50.4	25.9	5.7
Sept	203.6	1.8	10.0	24.0	44.1	50.7	52.7	26.6	5.6
Dec	215.2	1.9	10.8	26.1	47.7	54.0	54.0	27.6	5.8
2005 March	204.6	1.9	10.4	25.1	45.4	50.8	51.0	26.6	5.7
June	204.7	2.0	10.5	25.1	45.2	51.0	50.7	26.9	5.8
Sept	210.9	2.0	10.4	25.3	45.6	53.3	53.1	27.5	6.0
Dec	221.7	2.0	11.0	26.8	49.3	56.2	54.3	29.1	6.0
2006 March	214.0	1.8	10.2	25.4	47.5	54.2	52.4	28.3	6.2
June	212.6	2.1	10.6	25.7	46.9	53.8	51.4	28.3	6.5
Sept	215.1	2.0	10.0	24.7	46.3	55.3	53.6	28.9	6.4
Dec	228.2	2.0	11.0	27.3	50.6	58.9	55.1	29.9	6.5
2007 March[1,P]	221.6	2.0	10.8	26.7	49.4	57.0	52.7	29.3	6.5
June[1,P]	221.1	2.2	10.9	26.9	49.3	57.4	52.0	29.0	6.5
Sept[1,P]	222.2	2.0	10.3	25.6	48.5	58.8	52.9	29.7	6.7
Dec[1,P]	229.2	2.0	10.8	26.9	51.0	61.1	53.6	29.8	6.8
	(b) rates (conceptions per thousand women in age group)								
1991	77.7	8.9	44.6	64.1	120.2	135.1	90.1	34.4	6.6
1996	76.2	9.5	46.3	63.2	110.1	127.6	96.3	40.7	8.4
1999	71.9	8.3	45.1	63.1	103.9	118.0	95.3	42.9	9.1
2000	70.9	8.3	43.9	62.5	103.2	115.7	95.3	43.2	9.4
2001	70.3	8.0	42.7	60.8	102.5	114.2	96.7	44.3	9.6
2002	72.2	7.9	42.9	60.6	104.4	119.0	101.7	47.0	10.3
2003	73.7	7.9	42.4	60.0	107.2	122.0	106.0	49.1	10.7
2004	75.2	7.5	41.8	60.3	109.0	125.1	109.6	51.0	11.4
2005	76.0	7.8	41.4	60.1	108.7	125.8	112.0	53.2	11.5
2006	78.3	7.8	40.9	60.2	109.5	129.5	117.5	56.3	12.3
2007[1,2,P]	80.3	8.3	41.9	61.5	111.4	133.4	121.7	58.1	12.6
2004 March	76.2	7.8	43.5	63.2	111.5	125.4	109.3	51.1	11.4
June	73.2	7.7	42.2	60.1	105.9	121.1	105.5	49.7	11.5
Sept	73.6	7.1	39.2	56.8	105.0	122.6	109.9	50.6	11.1
Dec	77.7	7.4	42.4	61.5	112.9	129.9	113.2	52.8	11.4
2005 March	75.1	7.6	41.5	60.0	108.9	123.8	109.8	51.8	11.4
June	74.2	8.0	41.1	59.1	106.7	122.1	108.5	52.0	11.4
Sept	75.5	7.8	40.5	59.0	105.7	125.6	113.3	52.8	11.7
Dec	79.3	7.9	42.8	62.4	113.6	131.7	116.7	55.9	11.5
2006 March	78.2	7.1	40.4	60.3	111.2	129.2	116.2	55.7	12.2
June	76.7	8.2	41.4	60.3	108.1	126.1	113.6	55.3	12.5
Sept	76.8	7.7	38.8	57.2	104.8	127.4	118.1	56.0	12.1
Dec	81.4	8.1	42.8	63.0	114.1	134.9	122.4	58.2	12.3
2007 March[1,2,P]	80.8	8.1	42.9	62.9	113.4	132.8	121.2	58.4	12.6
June[1,2,P]	79.7	8.7	42.8	62.6	111.3	131.6	119.6	57.2	12.5
Sept[1,2,P]	79.2	8.2	40.1	59.0	107.8	132.2	121.1	58.3	12.6
Dec[1,2,P]	81.6	8.3	42.1	62.1	112.6	136.2	123.1	58.7	12.8
	(c) percentage terminated by abortion								
1991	*19.4*	*51.1*	*39.9*	*34.5*	*22.2*	*13.4*	*13.7*	*22.0*	*41.6*
1996	*20.8*	*49.2*	*40.0*	*36.2*	*25.7*	*15.6*	*14.1*	*21.2*	*37.6*
1999	*22.6*	*52.6*	*43.0*	*38.6*	*28.5*	*17.5*	*14.7*	*21.2*	*37.0*
2000	*22.7*	*54.0*	*44.2*	*39.3*	*29.2*	*17.7*	*14.5*	*20.5*	*35.4*
2001	*23.2*	*55.8*	*45.7*	*40.4*	*29.7*	*18.4*	*14.6*	*20.4*	*34.6*
2002	*22.5*	*55.6*	*45.3*	*39.9*	*28.8*	*17.9*	*13.9*	*19.5*	*34.6*
2003	*22.5*	*57.4*	*45.7*	*40.2*	*29.0*	*17.9*	*13.6*	*18.9*	*34.7*
2004	*22.4*	*57.2*	*45.6*	*40.1*	*28.9*	*18.2*	*13.2*	*18.3*	*33.0*
2005	*22.2*	*57.1*	*46.3*	*40.3*	*28.6*	*18.0*	*13.2*	*17.7*	*32.8*
2006	*22.3*	*59.8*	*48.4*	*41.9*	*28.7*	*18.0*	*13.1*	*17.1*	*31.8*
2007[1,P]	*22.0*	*61.4*	*50.0*	*42.6*	*28.3*	*17.5*	*12.7*	*16.7*	*31.1*
2004 March	*22.7*	*58.2*	*45.7*	*40.2*	*29.4*	*18.5*	*13.4*	*18.2*	*32.9*
June	*23.0*	*57.2*	*46.3*	*40.8*	*29.2*	*18.6*	*13.7*	*19.2*	*33.5*
Sept	*21.9*	*56.8*	*45.8*	*40.0*	*28.4*	*17.9*	*12.8*	*17.8*	*33.0*
Dec	*22.0*	*56.3*	*44.5*	*39.3*	*28.6*	*17.8*	*13.0*	*18.2*	*32.5*
2005 March	*22.5*	*57.5*	*47.3*	*41.1*	*29.2*	*18.1*	*13.1*	*18.0*	*32.6*
June	*22.7*	*57.0*	*45.8*	*40.3*	*28.9*	*18.6*	*13.9*	*17.8*	*33.8*
Sept	*21.4*	*56.2*	*45.3*	*39.0*	*27.5*	*17.5*	*12.6*	*17.2*	*32.1*
Dec	*22.2*	*57.5*	*46.9*	*40.6*	*28.7*	*17.8*	*13.1*	*17.7*	*32.7*
2006 March	*22.5*	*59.0*	*47.7*	*41.6*	*29.1*	*18.4*	*13.0*	*17.5*	*31.1*
June	*23.1*	*59.5*	*49.0*	*42.5*	*29.6*	*18.8*	*13.9*	*17.8*	*31.6*
Sept	*21.5*	*60.4*	*48.0*	*41.3*	*27.7*	*17.5*	*12.7*	*16.3*	*32.8*
Dec	*22.0*	*60.2*	*49.1*	*42.0*	*28.3*	*17.4*	*12.8*	*16.9*	*31.7*
2007 March[1,P]	*22.7*	*62.5*	*50.7*	*43.2*	*29.5*	*18.3*	*13.0*	*16.9*	*31.1*
June[1,P]	*22.5*	*61.9*	*50.3*	*43.1*	*28.6*	*18.0*	*12.8*	*17.0*	*31.5*
Sept[1,P]	*21.1*	*57.9*	*48.6*	*41.4*	*27.0*	*16.6*	*12.3*	*16.1*	*30.8*
Dec[1,P]	*21.9*	*63.3*	*50.4*	*42.7*	*28.1*	*17.2*	*12.6*	*16.8*	*30.8*

Note: Conception figures are estimates derived from birth registrations and abortion notifications.
Rates for women of all ages, under 16, under 18, under 20 and over are based on the population of women aged 15–44, 13–15, 15–17, 15–19 and 40–44 respectively.
For a quarterly analysis of conceptions to women under 18 for local authority areas see the ONS website, www.ons.gov.uk

1 Figures for conceptions in 2007 exclude maternities relating to births in 2008 where the mother's date of birth was not stated on the registration and could not be supplied from another source. See Explanatory notes in the 2007 Conceptions report in this volume.

2 Rates for both quarterly and annual 2007 conceptions are calculated using the 2007 mid-year estimates.

p provisional

Table 4.2 Abortions: residents and non-residents; age and gestation (residents only)

England and Wales

Numbers (thousands) and rates; and percentages for gestation weeks

Year and quarter	All ages: All[1] women	All ages: Residents[1]	All ages: Non-[1] residents	All women (residents): Age group: Under 16	16–19	20–24	25–29	30–34	35–44	45 and over	Gestation weeks (percentages): Under 9	9–12	13–19	20 and over
	Numbers (thousands)										Percentages			
1971	126.8	94.6	32.2	2.3	18.2	24.5	17.3	14.2	15.9	0.5	*16.6*	*57.9*	*21.8*	*1.0*
1976	129.7	101.9	27.8	3.4	24.0	23.6	19.3	14.6	14.7	0.5	*24.8*	*55.8*	*15.0*	*1.1*
1981	162.5	128.6	33.9	3.5	31.4	34.3	21.9	18.7	17.6	0.6	*31.0*	*53.4*	*13.5*	*1.3*
1986	172.3	147.6	24.7	3.9	33.8	45.3	28.7	18.0	17.5	0.4	*33.4*	*53.8*	*11.5*	*1.4*
1991	179.5	167.4	12.1	3.2	31.1	52.7	38.6	23.4	17.9	0.4	*35.2*	*52.9*	*10.6*	*1.2*
1996	177.5	167.9	9.6	3.6	28.8	46.4	39.3	28.2	21.1	0.4	*40.0*	*48.7*	*10.1*	*1.3*
1997	179.7	170.1	9.6	3.4	29.9	45.0	40.2	28.9	22.3	0.5	*41.2*	*47.9*	*9.6*	*1.2*
1998	187.4	177.9	9.5	3.8	33.2	45.8	40.4	30.4	23.8	0.5	*41.4*	*47.6*	*9.7*	*1.3*
1999	183.2	173.7	9.5	3.6	32.8	45.0	38.5	29.1	24.1	0.5	*42.5*	*46.5*	*9.5*	*1.4*
2000	185.4	175.5	9.8	3.7	33.2	47.1	37.9	28.7	24.4	0.5	*43.3*	*45.0*	*10.3*	*1.5*
2001	186.3	176.4	9.9	3.7	33.4	48.3	36.5	28.8	25.2	0.5	*42.8*	*45.0*	*10.6*	*1.6*
2002	185.4	175.9	9.5	3.7	33.0	48.4	35.8	28.5	26.0	0.5	*42.2*	*45.2*	*11.0*	*1.6*
2003	190.7	181.6	9.1	4.0	34.2	51.1	36.0	28.7	26.9	0.5	*43.6*	*43.7*	*11.1*	*1.6*
2004	194.5	185.7	8.8	3.8	35.5	52.8	37.8	28.1	27.3	0.5	*46.2*	*41.5*	*10.8*	*1.6*
2005	194.4	186.4	7.9	3.8	35.3	53.3	38.3	27.8	27.2	0.6	*53.6*	*35.7*	*9.3*	*1.4*
2006	201.2	193.7	7.4	4.0	37.3	55.3	40.4	28.2	27.9	0.7	*54.9*	*34.3*	*9.2*	*1.5*
2007	205.6	198.5	7.1	4.4	39.6	57.0	41.7	27.3	27.9	0.7	*57.9*	*31.9*	*8.8*	*1.5*
2004 March	51.1	48.7	2.4	1.0	9.4	13.9	9.8	7.5	7.0	0.1	*41.7*	*44.5*	*12.1*	*1.7*
June	48.9	46.6	2.3	1.0	8.9	13.3	9.5	6.9	6.9	0.1	*43.6*	*43.3*	*11.2*	*1.8*
Sept	48.4	46.3	2.1	1.0	8.9	13.0	9.4	7.0	6.9	0.1	*47.8*	*40.5*	*10.3*	*1.4*
Dec	46.1	44.2	1.9	1.0	8.4	12.6	9.1	6.6	6.5	0.1	*52.0*	*37.2*	*9.5*	*1.3*
2005 March	50.1	47.9	2.1	0.9	9.1	13.9	9.7	7.2	7.0	0.1	*47.2*	*40.4*	*11.0*	*1.4*
June	50.1	48.0	2.1	1.0	9.2	13.9	9.9	7.1	6.9	0.1	*53.8*	*35.6*	*9.2*	*1.4*
Sept	47.0	45.1	1.9	1.0	8.5	12.7	9.3	6.9	6.7	0.1	*56.5*	*33.6*	*8.5*	*1.3*
Dec	47.2	45.3	1.8	0.9	8.6	12.9	9.5	6.7	6.7	0.1	*57.2*	*32.9*	*8.3*	*1.5*
2006 March	52.4	50.4	2.0	1.0	9.8	14.6	10.4	7.2	7.3	0.2	*50.6*	*37.3*	*10.5*	*1.6*
June	51.3	49.3	2.0	1.0	9.4	14.2	10.3	7.2	7.1	0.2	*53.6*	*35.3*	*9.4*	*1.7*
Sept	49.8	47.9	1.8	1.0	9.2	13.6	10.0	7.0	6.9	0.2	*56.5*	*33.0*	*9.0*	*1.5*
Dec	47.7	46.0	1.6	1.0	8.8	13.0	9.6	6.7	6.7	0.1	*59.5*	*31.3*	*7.9*	*1.3*
2007 March	55.3	53.3	1.9	1.2	10.8	15.4	11.1	7.3	7.4	0.2	54.1	35.0	9.4	1.6
June	51.2	49.4	1.8	1.1	9.9	14.3	10.3	6.7	6.8	0.2	56.6	32.6	9.2	1.5
Sept	49.9	48.2	1.7	1.0	9.5	13.5	10.2	6.6	7.0	0.2	58.6	31.2	8.8	1.4
Dec	49.2	47.6	1.6	1.1	9.4	13.7	10.0	6.6	6.7	0.2	62.7	28.3	7.6	1.4
2008 March[p]	53.3	51.5	1.8	1.1	10.5	14.7	10.8	7.0	7.1	0.2	58.4	31.0	9.0	1.6
June[p]	52.5	50.8	1.8	1.1	10.1	14.6	10.9	6.9	7.0	0.2	60.8	29.4	8.3	1.4
Sept[p]	48.4	46.7	1.7	1.0	9.1	13.3	10.2	6.5	6.4	0.2	62.9	27.6	8.0	1.5
Rates (per thousand women residents)	ASR[2] (women 15–44)	Crude rate[3] (women 15–44)												
1971	9.9	10.1	:	2.3	13.9	13.1	10.7	10.0	5.6	0.3				
1976	10.2	10.5	:	2.9	16.9	14.2	10.4	9.2	5.3	0.3				
1981	11.9	12.4	:	3.0	19.4	18.6	13.1	10.1	5.9	0.4				
1986	13.0	13.5	:	3.7	22.0	21.9	15.5	10.8	5.1	0.3				
1991	15.0	15.2	:	3.8	24.0	27.1	18.5	12.6	5.1	0.3				
1996	16.0	15.7	:	3.9	24.2	28.4	19.9	13.6	6.0	0.2				
1997	16.3	15.9	:	3.7	24.4	28.8	20.7	13.8	6.2	0.3				
1998	17.1	16.6	:	4.0	26.8	30.2	21.2	14.6	6.5	0.3				
1999	16.8	16.2	:	3.8	26.3	29.7	20.8	14.1	6.4	0.3				
2000	17.0	16.3	:	3.9	26.9	30.7	20.9	14.1	6.3	0.3				
2001	17.0	16.2	:	3.7	26.6	30.6	20.9	14.2	6.4	0.3				
2002	17.0	16.1	:	3.7	25.8	30.1	21.4	14.2	6.5	0.3				
2003	17.5	16.6	:	3.9	26.1	31.2	22.1	14.6	6.6	0.3				
2004	17.8	16.9	:	3.7	26.5	31.9	23.3	14.7	6.7	0.3				
2005	17.8	17.0	:	3.7	26.3	32.0	23.6	14.5	6.6	0.3				
2006	18.3	17.5	:	3.9	27.3	32.5	24.3	15.1	6.8	0.4				
2007	18.6	17.9	:	4.4	28.9	32.6	24.3	15.1	6.7	0.4				
2004 March	18.7	17.8	:	3.9	28.3	33.8	24.1	15.4	6.9	0.3				
June	17.9	17.0	:	3.8	26.7	32.3	23.3	14.4	6.7	0.3				
Sept	17.8	16.9	:	3.7	26.6	31.5	23.0	14.8	6.8	0.3				
Dec	17.0	16.2	:	3.5	25.0	30.4	22.3	14.2	6.3	0.3				
2005 March	18.4	17.5	:	3.7	27.0	33.5	23.8	15.2	6.8	0.3				
June	18.4	17.5	:	3.8	27.2	33.3	24.1	15.3	6.7	0.3				
Sept	17.3	16.4	:	3.8	25.2	30.5	22.6	14.8	6.5	0.3				
Dec	17.4	16.5	:	3.6	25.4	30.9	23.0	14.4	6.5	0.3				
2006 March	19.3	18.4	:	3.9	29.0	34.8	25.0	15.9	7.0	0.3				
June	18.9	18.0	:	3.9	27.8	33.8	24.7	16.0	6.8	0.4				
Sept	18.3	17.5	:	4.0	27.0	32.2	23.9	15.9	6.7	0.4				
Dec	17.5	16.8	:	4.0	25.9	30.8	22.8	15.3	6.5	0.3				
2007 March	20.0	19.2	:	4.7	31.4	35.3	25.6	16.7	7.2	0.4				
June	18.5	17.8	:	4.4	28.8	32.7	23.7	15.5	6.6	0.4				
Sept	18.0	17.4	:	4.2	27.7	30.8	23.3	15.4	6.8	0.4				
Dec	17.8	17.2	:	4.4	27.2	31.1	22.7	15.3	6.5	0.4				
2008 March[p]	19.3	18.6	:	4.6	30.4	33.2	24.3	16.5	7.0	0.4				
June[p]	19.0	18.3	:	4.4	29.5	32.8	24.4	16.3	6.8	0.3				
Sept[p]	17.4	16.9	:	4.0	26.6	29.7	22.7	15.3	6.3	0.4				

Notes: Rates for under 16 and 45 and over are based on female populations aged 13–15 and 45–49 respectively.
1 Includes cases with not stated age and/or gestation week.
2 Rates for all women residents age-standardised to the European population for ages 15–44.
3 Includes incomplete forms that have been returned to practitioners.
p provisional

Table 5.1 Period expectation of life at birth and selected age

Constituent countries of the United Kingdom

Years

Year	Males								Year	Females							
	At birth	At age								At birth	At age						
		5	20	30	50	60	70	80			5	20	30	50	60	70	80
United Kingdom																	
1981	70.8	66.9	52.3	42.7	24.1	16.3	10.1	5.8	1981	76.8	72.7	57.9	48.2	29.2	20.8	13.3	7.5
1986	71.9	67.8	53.2	43.6	24.9	16.8	10.5	6.0	1986	77.7	73.4	58 6	48.8	29.8	21.2	13.8	7.8
1991	73.2	68.9	54.2	44.7	26.0	17.7	11.1	6.4	1991	78.7	74.3	59.5	49.7	30.6	21.9	14.3	8.2
1996	74.2	69.8	55.1	45.6	26.9	18.5	11.6	6.6	1996	79.4	74.9	60.1	50.3	31.2	22.3	14.5	8.3
2000	75.3	70.9	56.1	46.6	28.0	19.5	12.3	7.0	2000	80.1	75.6	60.8	51.0	31.9	23.0	15.0	8.6
2001	75.6	71.2	56.4	46.9	28.2	19.7	12.5	7.1	2001	80.4	75.8	61.0	51.2	32.1	23.2	15.1	8.7
2002	75.9	71.4	56.6	47.1	28.5	19.9	12.6	7.1	2002	80.5	75.9	61.1	51.3	32.2	23.3	15.2	8.7
2003	76.2	71.7	56.9	47.4	28.7	20.2	12.8	7.3	2003	80.7	76.1	61.3	51.5	32.4	23.4	15.3	8.7
2004	76.5	72.0	57.3	47.7	29.0	20.5	13.1	7.4	2004	80.9	76.4	61.5	51.7	32.6	23.6	15.5	8.8
2005	76.9	72.4	57.6	48.0	29.4	20.8	13.4	7.6	2005	81.3	76.7	61.9	52.0	32.9	23.9	15.8	9.0
2006	77.2	72.7	57.9	48.3	29.6	21.1	13.6	7.7	2006	81.5	76.9	62.0	52.2	33.1	24.1	15.9	9.1
England and Wales																	
1981	71.0	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.1	48.3	29.4	20.9	13.4	7.5
1986	72.1	68.0	53.4	43.8	25.0	16.9	10.5	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.8	26.1	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.3	45.8	27.1	18.6	11.6	6.6	1996	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.4
2000	75.6	71.1	56.4	46.8	28.1	19.6	12.3	7.0	2000	80.3	75.8	60.9	51.1	32.0	23.1	15.1	8.6
2001	75.9	71.4	56.7	47.1	28.4	19.9	12.5	7.1	2001	80.5	76.0	61.2	51.3	32.2	23.3	15.2	8.7
2002	76.1	71.6	56.9	47.3	28.6	20.1	12.7	7.2	2002	80.7	76.1	61.3	51.5	32.3	23.4	15.3	8.7
2003	76.4	71.9	57.2	47.6	28.9	20.3	12.9	7.3	2003	80.9	76.3	61.5	51.7	32.5	23.6	15.4	8.8
2004	76.8	72.3	57.5	47.9	29.2	20.6	13.2	7.4	2004	81.1	76.6	61.7	51.9	32.7	23.8	15.6	8.9
2005	77.2	72.7	57.9	48.3	29.6	21.0	13.5	7.6	2005	81.5	76.9	62.0	52.2	33.1	24.1	15.9	9.1
2006	77.4	72.9	58.2	48.5	29.8	21.2	13.7	7.7	2006	81.7	77.1	62.2	52.4	33.2	24.3	16.0	9.2
England																	
1981	71.1	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.2	48.4	29.4	20.9	13.4	7.5
1986	72.2	68.1	53.4	43.8	25.1	17.0	10.6	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.9	26.2	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.4	45.8	27.1	18.7	11.7	6.6	1996	79.6	75.1	60.3	50.4	31.3	22.5	14.6	8.4
2000	75.6	71.2	56.4	46.9	28.2	19.6	12.4	7.0	2000	80.3	75.8	61.0	51.2	32.0	23.1	15.1	8.6
2001	75.9	71.4	56.7	47.1	28.5	19.9	12.6	7.1	2001	80.6	76.0	61.2	51.4	32.2	23.3	15.2	8.7
2002	76.1	71.7	56.9	47.4	28.7	20.1	12.7	7.2	2002	80.7	76.1	61.3	51.5	32.4	23.4	15.3	8.7
2003	76.5	72.0	57.2	47.6	28.9	20.4	12.9	7.3	2003	80.9	76.4	61.5	51.7	32.6	23.6	15.4	8.8
2004	76.8	72.3	57.6	48.0	29.2	20.7	13.2	7.4	2004	81.1	76.6	61.7	51.9	32.8	23.8	15.6	8.9
2005	77.2	72.7	57.9	48.3	29.6	21.0	13.5	7.6	2005	81.5	76.9	62.1	52.3	33.1	24.1	15.9	9.1
2006	77.5	73.0	58.2	48.6	29.8	21.2	13.7	7.7	2006	81.7	77.1	62.3	52.4	33.3	24.3	16.0	9.2
Wales																	
1981	70.4	66.5	51.9	42.2	23.6	15.8	9.7	5.6	1981	76.4	72.3	57.5	47.7	28.9	20.5	13.1	7.4
1986	71.6	67.5	52.8	43.2	24.6	16.6	10.3	6.0	1986	77.5	73.3	58.5	48.7	29.7	21.1	13.7	7.8
1991	73.1	68.8	54.1	44.6	25.8	17.6	11.0	6.4	1991	78.8	74.3	59.5	49.7	30.6	21.8	14.3	8.3
1996	73.8	69.4	54.7	45.3	26.6	18.2	11.3	6.4	1996	79.1	74.6	59.7	49.9	30.9	22.1	14.4	8.3
2000	74.8	70.4	55.7	46.2	27.6	19.1	12.0	6.8	2000	79.7	75.2	60.4	50.6	31.5	22.6	14.7	8.4
2001	75.3	70.8	56.0	46.6	28.0	19.5	12.3	7.0	2001	80.0	75.4	60.6	50.8	31.7	22.8	14.9	8.5
2002	75.5	70.9	56.2	46.8	28.2	19.7	12.4	7.1	2002	80.1	75.5	60.7	50.9	31.8	22.9	15.0	8.6
2003	75.8	71.2	56.5	47.0	28.4	19.9	12.6	7.2	2003	80.3	75.7	60.9	51.1	32.0	23.1	15.1	8.6
2004	76.1	71.6	56.8	47.3	28.7	20.2	12.8	7.3	2004	80.6	76.0	61.1	51.3	32.2	23.3	15.2	8.7
2005	76.6	72.0	57.3	47.7	29.2	20.6	13.2	7.6	2005	80.9	76.3	61.5	51.6	32.6	23.7	15.5	8.9
2006	76.7	72.1	57.4	47.8	29.3	20.8	13.4	7.6	2006	81.1	76.5	61.6	51.8	32.7	23.8	15.7	9.0
Scotland																	
1981	69.1	65.2	50.6	41.1	22.9	15.4	9.6	5.5	1981	75.3	71.2	56.4	46.7	27.9	19.7	12.7	7.2
1986	70.2	66.0	51.4	41.9	23.5	15.8	9.9	5.7	1986	76.2	71.9	57.1	47.3	28.4	20.1	13.0	7.5
1991	71.4	67.1	52.5	43.0	24.6	16.6	10.4	6.1	1991	77.1	72.7	57.9	48.1	29.2	20.7	13.5	7.9
1996	72.2	67.8	53.1	43.7	25.3	17.3	10.9	6.3	1996	77.9	73.3	58.5	48.8	29.8	21.2	13.8	8.0
2000	73.1	68.6	53.9	44.6	26.3	18.2	11.5	6.6	2000	78.6	74.0	59.2	49.4	30.5	21.8	14.1	8.1
2001	73.3	68.8	54.2	44.8	26.6	18.4	11.7	6.8	2001	78.8	74.2	59.4	49.6	30.7	22.0	14.3	8.2
2002	73.5	69.0	54.3	45.0	26.7	18.6	11.8	6.8	2002	78.9	74.3	59.5	49.7	30.8	22.1	14.4	8.2
2003	73.8	69.3	54.6	45.2	27.0	18.8	12.0	6.9	2003	79.1	74.5	59.7	49.9	30.9	22.2	14.5	8.3
2004	74.2	69.7	55.0	45.6	27.3	19.1	12.2	7.0	2004	79.3	74.7	59.9	50.1	31.1	22.4	14.7	8.4
2005	74.6	70.1	55.4	45.9	27.7	19.4	12.5	7.2	2005	79.6	75.0	60.2	50.4	31.4	22.7	14.9	8.5
2006	74.8	70.3	55.5	46.1	27.9	19.6	12.6	7.2	2006	79.7	75.1	60.3	50.5	31.5	22.8	15.0	8.6
Northern Ireland																	
1981	69.2	65.4	50.9	41.5	23.2	15.6	9.7	5.8	1981	75.5	71.6	56.8	47.1	28.3	20.0	12.8	7.3
1986	70.9	66.8	52.2	42.7	24.2	16.4	10.4	6.2	1986	77.1	72.9	58.1	48.3	29.3	20.8	13.4	7.8
1991	72.6	68.2	53.6	44.1	25.5	17.3	11.0	6.4	1991	78.4	74.0	59.2	49.4	30.3	21.6	14.2	8.3
1996	73.8	69.4	54.7	45.3	26.6	18.2	11.4	6.6	1996	79.2	74.7	59.9	50.0	30.9	22.1	14.4	8.4
2000	74.8	70.4	55.7	46.2	27.6	19.1	11.9	6.6	2000	79.8	75.2	60.4	50.6	31.5	22.6	14.6	8.2
2001	75.2	70.7	56.1	46.6	27.9	19.4	12.3	6.9	2001	80.1	75.6	60.7	50.9	31.8	22.9	14.9	8.4
2002	75.6	71.1	56.4	46.9	28.2	19.7	12.4	7.0	2002	80.4	75.9	61.0	51.2	32.0	23.1	15.1	8.5
2003	75.8	71.4	56.7	47.1	28.4	19.9	12.6	7.2	2003	80.6	76.0	61.1	51.3	32.2	23.3	15.2	8.6
2004	76.0	71.6	56.9	47.4	28.7	20.2	12.8	7.3	2004	80.8	76.3	61.4	51.6	32.5	23.5	15.4	8.7
2005	76.1	71.6	57.0	47.5	28.9	20.4	13.0	7.3	2005	81.0	76.4	61.6	51.8	32.7	23.7	15.6	8.8
2006	76.2	71.7	57.1	47.6	29.1	20.6	13.1	7.3	2006	81.2	76.6	61.8	52.0	32.8	23.9	15.7	8.9

Note: All figures are based on a three-year period, so that for instance 2003 represents 2002–2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2005–2007 interim life tables (30 October 2008). All figures are based on death registrations. A minor methodological change was introduced for the 2006 figures to ensure consistency with population estimates of the very elderly for England and Wales. The effect on calculated life expectancies is marginal.

Table 6.1 Deaths: age and sex

England and Wales

Numbers (thousands) and rates

Year and quarter	All ages	Age group: Under 1[1]	1–4	5–9	10–14	15–19	20–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and over
Numbers (thousands)														
Males														
1976	300.1	4.88	0.88	0.68	0.64	1.66	1.66	3.24	5.93	20.4	52.0	98.7	80.3	29.0
1981	289.0	4.12	0.65	0.45	0.57	1.73	1.58	3.18	5.54	16.9	46.9	92.2	86.8	28.5
1986	287.9	3.72	0.57	0.33	0.38	1.43	1.75	3.10	5.77	14.4	43.6	84.4	96.2	32.2
1991	277.6	2.97	0.55	0.34	0.35	1.21	1.76	3.69	6.16	13.3	34.9	77.2	95.8	39.3
1996	268.7	2.27	0.44	0.24	0.29	0.93	1.41	4.06	5.84	13.6	30.1	71.0	90.7	47.8
1999	264.3	2.08	0.41	0.22	0.28	0.90	1.27	3.85	5.93	13.6	28.7	64.3	90.4	52.3
2000	255.5	1.89	0.34	0.22	0.28	0.87	1.22	3.76	6.05	13.4	27.9	60.6	87.1	51.9
2001	252.4	1.81	0.32	0.19	0.28	0.88	1.27	3.63	6.07	13.3	27.5	57.5	87.0	52.7
2002	253.1	1.81	0.32	0.20	0.28	0.83	1.24	3.47	6.20	12.9	27.7	56.3	88.3	53.6
2003	253.9	1.81	0.31	0.19	0.24	0.81	1.23	3.26	6.32	12.7	28.2	55.1	89.6	54.0
2004	244.1	1.79	0.29	0.17	0.26	0.78	1.15	3.10	6.19	12.2	27.0	52.5	87.3	51.3
2005	243.3	1.87	0.28	0.16	0.25	0.75	1.11	2.89	6.14	12.1	27.3	51.0	84.8	54.7
2006	240.9	1.86	0.29	0.19	0.26	0.84	1.21	3.13	6.32	12.3	27.6	48.9	81.9	56.2
2007	240.8	1.88	0.34	0.18	0.23	0.80	1.22	3.14	6.26	11.9	27.5	47.8	80.6	58.9
Females														
1976	298.5	3.46	0.59	0.45	0.42	0.62	0.67	1.94	4.04	12.8	29.6	67.1	104.7	72.1
1981	288.9	2.90	0.53	0.30	0.37	0.65	0.64	1.82	3.74	10.5	27.2	62.8	103.6	73.9
1986	293.3	2.59	0.49	0.25	0.27	0.56	0.67	1.65	3.83	8.8	25.8	58.4	106.5	83.6
1991	292.5	2.19	0.44	0.25	0.22	0.46	0.64	1.73	3.70	8.4	21.3	54.2	103.3	95.7
1996	291.5	1.69	0.32	0.18	0.20	0.43	0.51	1.85	3.66	8.9	18.2	50.2	96.7	108.7
1999	291.8	1.55	0.30	0.17	0.22	0.39	0.47	1.67	3.79	9.0	18.0	45.1	93.9	117.2
2000	280.1	1.49	0.25	0.16	0.18	0.38	0.47	1.69	3.87	9.1	17.6	42.2	89.3	113.4
2001	277.9	1.43	0.27	0.19	0.18	0.38	0.47	1.59	3.77	8.9	17.6	40.5	88.8	113.9
2002	280.4	1.31	0.24	0.16	0.19	0.38	0.43	1.61	3.77	8.7	17.7	39.6	90.0	116.3
2003	284.4	1.50	0.28	0.15	0.19	0.35	0.46	1.57	3.86	8.5	18.0	39.0	92.7	117.9
2004	268.4	1.43	0.23	0.13	0.16	0.38	0.46	1.49	3.80	8.1	17.6	36.9	88.3	109.4
2005	269.1	1.37	0.22	0.13	0.18	0.38	0.48	1.48	3.81	8.2	17.8	36.0	86.4	113.1
2006	261.7	1.51	0.27	0.14	0.17	0.38	0.44	1.38	3.80	8.1	17.9	34.5	81.2	111.9
2007	263.3	1.46	0.24	0.12	0.19	0.36	0.45	1.36	3.79	8.1	18.2	33.9	79.4	115.8
Rates (deaths per 1,000 population in each age group)														
Males														
1976	12.5	16.2	0.65	0.34	0.31	0.88	0.96	0.92	2.09	6.97	19.6	50.3	116.4	243.2
1981	12.0	12.6	0.53	0.27	0.29	0.82	0.83	0.89	1.83	6.11	17.7	45.6	105.2	226.5
1986	11.8	11.0	0.44	0.21	0.23	0.72	0.83	0.88	1.68	5.27	16.6	42.8	101.2	215.4
1991	11.2	8.3	0.40	0.21	0.23	0.72	0.89	0.94	1.76	4.56	13.9	38.1	93.1	205.6
1996	10.7	6.8	0.32	0.14	0.18	0.60	0.85	1.01	1.67	4.06	11.9	34.5	85.0	198.8
1999	10.4	6.5	0.31	0.12	0.16	0.56	0.83	0.99	1.60	3.99	10.9	31.6	79.9	194.4
2000	10.0	6.1	0.26	0.13	0.16	0.54	0.79	0.98	1.59	3.92	10.4	29.7	75.9	187.5
2001	9.9	5.9	0.25	0.11	0.16	0.53	0.80	0.97	1.56	3.89	10.0	28.0	74.0	186.4
2002	9.8	5.9	0.25	0.12	0.16	0.49	0.77	0.94	1.57	3.86	9.7	27.2	73.5	187.7
2003	9.8	5.7	0.25	0.11	0.14	0.46	0.75	0.91	1.58	3.81	9.6	26.4	72.9	191.0
2004	9.4	5.5	0.23	0.10	0.15	0.44	0.67	0.87	1.53	3.67	9.0	25.0	69.9	176.0
2005	9.3	5.7	0.24	0.10	0.16	0.48	0.69	0.89	1.56	3.61	8.9	24.1	67.4	172.1
2006	9.1	5.4	0.23	0.12	0.15	0.46	0.67	0.89	1.55	3.58	8.8	23.2	64.7	163.4
2007	9.1	5.3	0.26	0.12	0.13	0.42	0.65	0.89	1.54	3.42	8.7	22.5	62.8	161.0
2005 March	10.5	6.2	0.26	0.09	0.17	0.46	0.71	0.88	1.56	3.83	9.7	26.6	77.3	201.2
June	9.1	5.5	0.25	0.10	0.18	0.42	0.59	0.83	1.57	3.53	8.8	23.4	65.8	162.9
Sept	8.3	5.3	0.20	0.09	0.12	0.40	0.63	0.85	1.44	3.46	8.3	22.2	59.6	146.0
Dec	9.3	5.6	0.21	0.11	0.11	0.39	0.62	0.73	1.46	3.54	8.8	24.0	66.9	176.9
2006 March	10.2	5.3	0.29	0.14	0.16	0.46	0.72	0.95	1.59	3.82	9.5	25.4	73.7	189.6
June	9.0	5.5	0.24	0.10	0.15	0.45	0.69	0.89	1.57	3.60	8.8	23.3	63.7	158.5
Sept	8.4	5.4	0.14	0.11	0.15	0.51	0.58	0.83	1.49	3.43	8.3	21.5	58.7	143.8
Dec	8.9	5.6	0.26	0.13	0.15	0.43	0.69	0.90	1.54	3.50	8.7	22.5	62.7	162.1
2007 March	10.0	5.3	0.29	0.12	0.14	0.47	0.65	0.92	1.55	3.68	9.2	24.4	69.9	184.3
June	8.8	5.7	0.26	0.12	0.14	0.44	0.65	0.90	1.50	3.39	8.6	22.1	60.7	152.3
Sept	8.3	5.1	0.22	0.09	0.13	0.40	0.61	0.88	1.49	3.18	8.2	20.7	57.1	140.5
Dec	9.3	5.2	0.28	0.13	0.12	0.43	0.69	0.88	1.61	3.45	9.0	22.8	63.6	167.3
2008[2] March[p]	9.7	5.4	0.21	0.12	0.11	0.36	0.60	0.84	1.56	3.65	9.0	23.3	65.7	178.3
June[p]	8.8	5.3	0.22	0.12	0.12	0.45	0.61	0.87	1.58	3.38	8.5	21.6	59.8	155.6
Sept[p]	8.2	5.1	0.18	0.13	0.10	0.44	0.70	0.88	1.56	3.27	8.1	20.3	55.0	139.5
Females														
1976	11.8	12.2	0.46	0.24	0.21	0.35	0.40	0.56	1.46	4.30	10.1	26.0	74.6	196.6
1981	11.3	9.4	0.46	0.19	0.19	0.32	0.35	0.52	1.26	3.80	9.5	24.1	66.2	178.2
1986	11.4	8.0	0.40	0.17	0.17	0.29	0.33	0.47	1.12	3.24	9.2	23.4	62.5	169.4
1991	11.2	6.4	0.33	0.16	0.15	0.29	0.33	0.44	1.05	2.87	8.2	21.8	58.7	161.6
1996	11.0	5.3	0.25	0.10	0.12	0.29	0.31	0.46	1.04	2.63	7.1	20.6	55.8	158.9
1999	11.0	5.1	0.24	0.10	0.13	0.25	0.31	0.43	1.01	2.61	6.7	19.2	53.4	162.6
2000	10.5	5.1	0.20	0.10	0.11	0.25	0.30	0.44	1.00	2.62	6.4	18.1	50.8	155.2
2001	10.4	4.9	0.22	0.12	0.11	0.24	0.30	0.42	0.96	2.57	6.3	17.4	50.1	155.0
2002	10.4	4.5	0.20	0.10	0.11	0.24	0.27	0.44	0.94	2.54	6.0	17.0	50.4	159.4
2003	10.6	4.9	0.24	0.10	0.12	0.21	0.28	0.43	0.95	2.51	5.9	16.7	51.3	165.6
2004	9.9	4.6	0.20	0.09	0.10	0.22	0.27	0.42	0.93	2.39	5.7	15.8	48.6	154.3
2005	9.9	4.4	0.19	0.09	0.11	0.22	0.27	0.40	0.90	2.38	5.6	15.4	48.1	152.7
2006	9.6	4.6	0.22	0.09	0.10	0.22	0.26	0.39	0.92	2.33	5.6	14.8	45.7	143.8
2007	9.6	4.3	0.19	0.08	0.12	0.21	0.25	0.39	0.92	2.27	5.6	14.5	44.9	143.6
2005 March	11.6	4.8	0.22	0.09	0.13	0.20	0.32	0.46	0.95	2.57	6.0	17.3	57.0	184.7
June	9.5	4.7	0.20	0.10	0.10	0.25	0.27	0.37	0.97	2.31	5.5	15.0	46.6	144.2
Sept	8.7	3.9	0.14	0.06	0.09	0.20	0.24	0.36	0.86	2.32	5.4	13.8	42.0	129.7
Dec	9.8	4.2	0.19	0.08	0.11	0.22	0.24	0.41	0.84	2.31	5.6	15.3	46.8	152.7
2006 March	11.0	5.0	0.25	0.07	0.08	0.24	0.30	0.39	1.01	2.42	6.1	16.4	52.5	172.0
June	9.4	4.6	0.22	0.10	0.14	0.19	0.24	0.42	0.88	2.35	5.5	14.7	45.4	140.9
Sept	8.6	4.3	0.19	0.10	0.08	0.23	0.22	0.36	0.91	2.27	5.3	13.7	41.1	124.3
Dec	9.2	4.5	0.24	0.09	0.12	0.23	0.25	0.41	0.89	2.27	5.5	14.3	43.7	138.7
2007 March	10.9	4.5	0.24	0.07	0.12	0.27	0.27	0.38	0.97	2.31	5.9	16.3	51.7	167.0
June	9.2	4.6	0.21	0.10	0.13	0.18	0.22	0.44	0.86	2.31	5.5	14.1	42.8	136.0
Sept	8.5	4.1	0.14	0.06	0.11	0.18	0.28	0.36	0.87	2.22	5.2	12.9	40.0	124.3
Dec	9.8	4.2	0.16	0.10	0.12	0.20	0.25	0.38	0.96	2.25	5.7	14.7	45.4	147.9
2008[2] March[p]	10.4	4.5	0.20	0.07	0.09	0.22	0.23	0.41	0.93	2.34	5.6	15.0	48.6	161.8
June[p]	9.3	3.6	0.20	0.11	0.10	0.16	0.27	0.41	0.92	2.29	5.4	13.7	42.7	140.5
Sept[p]	8.4	4.4	0.20	0.09	0.08	0.20	0.24	0.42	0.90	2.17	5.2	13.0	38.8	124.3

Note: Figures represent the numbers of deaths registered in each year up to 1992 and the numbers of deaths occurring in each year from 1993 to 2005. 2006, 2007 and provisional 2008 figures relate to registrations.

1 Rates per 1,000 live births.

2 Death rates for 2008 are based on the 2006-based population projections for 2008.

p provisional.

Table 6.2 Deaths: subnational

Government Office Regions of England

Rates

Year and quarter	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Total deaths (deaths per 1,000 population of all ages)									
1996	11.7	11.7	11.2	10.7	10.7	10.3	9.4	10.7	11.7
1997	11.6	11.6	11.1	10.5	10.6	10.2	9.0	10.6	11.7
1998	11.9	11.7	11.2	10.8	10.6	10.2	8.8	10.4	11.4
1999	11.6	11.5	10.9	10.7	10.7	10.3	8.7	10.5	11.6
2000	10.8	10.7	10.3	10.0	10.3	9.9	8.2	9.8	11.3
2001	11.1	11.0	10.4	10.1	10.2	9.9	7.9	9.9	11.0
2002	11.2	11.0	10.5	10.2	10.3	10.0	7.8	10.0	11.1
2003	11.3	11.0	10.5	10.3	10.5	9.9	7.9	9.9	11.2
2004	11.0	10.5	10.1	9.7	9.9	9.5	7.3	9.4	10.4
2005	10.8	10.4	9.9	9.7	9.9	9.4	7.1	9.4	10.4
2006	10.5	10.2	9.6	9.6	9.7	9.2	6.8	9.2	10.1
2007	10.4	10.3	9.7	9.4	9.7	9.1	6.7	9.1	10.2
2006 March	11.6	11.4	10.7	10.8	11.1	10.6	7.8	10.8	11.6
June	10.6	10.2	9.5	9.5	9.6	9.2	6.7	8.9	9.9
Sept	9.4	9.3	8.8	8.7	8.8	8.3	6.2	8.1	9.1
Dec	10.6	9.9	9.5	9.5	9.4	9.0	6.5	8.8	9.9
2007 March	11.8	11.7	10.9	10.6	11.0	10.2	7.4	10.0	11.5
June	9.9	9.9	9.5	9.1	9.4	8.8	6.5	8.8	9.8
Sept	9.4	9.2	8.8	8.5	8.5	8.3	6.1	8.2	9.2
Dec	10.7	10.4	10.0	9.7	9.8	9.4	6.8	9.5	10.5
2008[1] March[p]	11.4	10.9	10.3	10.0	10.4	9.9	7.2	9.7	10.8
June[p]	9.9	9.7	9.5	9.2	9.3	9.0	6.4	8.8	9.8
Sept[p]	9.5	9.2	8.6	8.5	8.6	8.2	5.8	8.1	9.4
Infant mortality (deaths under 1 year per 1,000 live births)									
1996	6.2	6.3	6.5	6.3	6.8	5.3	6.3	5.3	5.5
1997	5.8	6.7	6.5	5.7	7.0	4.8	5.8	5.0	5.8
1998	5.0	6.3	6.9	5.6	6.5	5.0	6.0	4.4	4.8
1999	5.6	6.5	6.3	6.0	6.9	4.6	6.0	4.8	4.7
2000	6.5	6.2	7.3	5.4	6.8	4.4	5.4	4.4	4.7
2001	5.4	5.8	5.5	4.9	6.4	4.5	6.1	4.2	5.4
2002	4.8	5.4	6.1	5.6	6.6	4.3	5.5	4.5	4.3
2003	4.9	5.9	5.7	5.9	7.4	4.5	5.4	4.2	4.1
2004	4.6	5.4	5.8	4.9	6.3	4.2	5.2	3.9	4.5
2005	4.7	5.6	6.0	4.8	6.6	4.0	5.2	3.9	4.5
2006	5.4	5.6	5.7	5.4	6.4	4.1	4.9	4.1	4.0
2007	4.7	5.0	5.7	5.3	5.9	4.3	4.5	3.9	4.2
2006 March	5.4	6.0	5.4	5.9	6.6	3.8	5.5	4.3	4.2
June	6.4	5.5	6.1	5.0	7.0	4.3	4.6	4.2	3.7
Sept	5.4	5.2	4.8	5.3	6.7	3.6	4.8	4.2	3.6
Dec	4.5	5.7	6.6	5.5	5.3	4.6	4.7	3.9	4.7
2007 March	5.1	5.1	4.5	5.3	6.4	4.2	4.5	3.9	4.4
June	4.5	5.5	7.2	6.5	6.1	3.9	5.1	4.3	3.9
Sept	4.0	4.3	5.2	5.1	5.5	4.7	4.7	3.9	4.1
Dec	5.3	5.2	5.7	4.3	5.7	4.4	4.0	3.5	4.2
2008 March[p]	4.3	4.9	5.8	4.7	7.7	4.4	4.0	4.5	4.9
June[p]	4.4	4.9	4.6	4.9	6.7	4.3	3.9	3.7	3.1
Sept[p]	3.8	5.6	4.8	5.7	6.4	4.4	4.4	3.6	4.2
Neonatal mortality (deaths under 4 weeks per 1,000 live births)									
1996	4.1	4.0	4.2	4.2	4.9	3.5	4.4	3.5	3.8
1997	3.7	4.3	4.4	3.7	5.0	3.3	3.7	3.4	3.9
1998	3.1	4.1	4.5	3.7	4.8	3.4	4.1	2.9	3.3
1999	4.1	4.4	4.1	4.3	4.8	3.0	4.1	3.2	3.2
2000	4.4	4.3	5.0	4.1	5.0	3.0	3.7	3.1	3.0
2001	3.5	3.8	3.2	3.4	4.4	2.9	4.1	2.9	3.7
2002	3.2	3.6	4.0	4.0	4.8	2.9	3.6	2.9	3.1
2003	3.2	4.1	4.0	4.2	5.1	3.0	3.7	2.8	2.9
2004	2.8	3.6	3.8	3.5	4.7	2.9	3.6	2.8	3.2
2005	2.9	3.8	4.0	3.5	4.9	2.6	3.4	2.7	3.2
2006	3.8	3.8	4.0	4.0	4.6	2.9	3.4	2.8	2.9
2007	3.0	3.3	4.0	3.6	4.5	3.0	3.1	2.6	2.8
2006 March	4.1	3.8	4.0	4.2	4.6	2.7	3.4	2.9	3.2
June	4.0	3.8	4.2	3.9	5.1	3.2	3.3	2.7	2.4
Sept	3.4	3.5	3.3	3.9	5.4	2.5	3.5	2.9	2.6
Dec	3.7	4.1	4.7	4.0	3.2	3.1	3.6	2.5	3.6
2007 March	4.0	3.8	3.3	3.4	4.8	2.9	3.0	2.6	3.0
June	1.8	3.7	5.2	4.5	4.6	2.6	3.5	3.0	2.5
Sept	2.6	2.7	3.5	3.5	4.2	3.1	3.1	2.5	3.1
Dec	3.7	2.9	3.8	2.8	4.6	3.6	2.7	2.4	2.7
2008 March[p]	3.3	3.3	4.0	3.6	5.8	3.0	2.8	2.9	3.1
June[p]	2.7	3.4	2.7	3.3	4.3	2.7	2.6	2.7	2.5
Sept[p]	3.1	3.6	3.2	4.1	5.0	2.9	2.9	2.7	2.8
Perinatal mortality (stillbirths and deaths under 1 week per 1,000 total births)									
1996	9.2	8.6	8.3	8.7	10.2	7.5	9.6	7.8	7.5
1997	8.0	8.9	8.3	7.7	9.6	7.3	9.0	7.3	8.7
1998	8.2	8.7	9.2	8.0	9.3	7.4	9.0	6.8	7.3
1999	8.2	8.7	8.3	7.8	9.9	7.0	9.0	6.9	7.8
2000	8.5	8.6	9.6	7.8	9.6	7.1	9.0	6.6	6.6
2001	7.8	8.7	7.5	7.9	9.1	7.1	8.9	6.9	7.2
2002	8.1	8.5	9.0	8.5	10.0	7.5	9.3	6.9	6.8
2003	7.8	9.0	9.1	9.5	10.2	7.3	9.6	7.0	7.0
2004	7.9	8.4	9.4	8.1	9.6	7.6	9.3	7.0	7.2
2005	7.8	8.2	9.4	7.6	9.9	6.4	8.5	6.8	6.8
2006	8.0	8.3	8.5	8.4	9.2	6.7	8.8	7.0	6.6
2007[2]	7.2	7.9	8.8	7.3	9.1	7.0	8.4	6.7	6.4
2006 March	8.2	9.0	7.6	8.7	9.6	7.4	9.1	7.6	6.5
June	8.7	8.3	9.2	9.1	10.1	7.0	8.7	6.8	6.8
Sept	7.5	8.0	8.4	8.4	9.6	6.6	8.7	6.6	6.2
Dec	7.8	7.8	8.7	7.6	7.4	6.0	8.9	7.0	7.0
2007[2] March	7.5	8.5	7.8	6.8	9.5	7.6	8.5	6.8	6.8
June	6.8	7.4	9.2	8.6	9.8	6.7	9.1	7.1	6.5
Sept	7.4	7.3	8.9	7.1	7.8	7.0	8.6	6.1	6.4
Dec	7.2	8.5	9.1	6.7	9.5	6.8	7.6	6.7	6.1
2008 March[p]	6.5	8.2	9.2	7.9	11.5	6.1	7.7	6.6	6.3
June[p]	7.5	8.0	7.7	7.5	9.3	6.4	7.7	6.6	6.3
Sept[p]	8.2	7.9	6.7	6.5	8.3	6.3	7.4	5.9	7.2

Note: Figures represent the numbers of deaths occurring in each year with the exception of 2006, 2007 and provisional 2008 figures relate to registrations.
1 Total deaths rates for 2008 have been calculated using the mid-2007 population estimates published on 21 August 2008.
2 2007 Perinatal figures have been updated to include late receipt of stillbirth records.
p provisional.

Table 6.3 Deaths: selected causes (International Classification)[1] and sex

England and Wales

Number (thousands) and rate for all deaths and age-standardised rates per million population for selected causes

Year and quarter	All deaths		All causes (age - standardised rates per million population[2])	Malignant neoplasms									
	Number (thousands)	Crude rate per 100,000 population		Oesophagus	Stomach	Colon	Rectosigmoid junction, rectum, and anus	Trachea, bronchus and lung	Melanoma of skin	Other malignant neoplasms of skin	Breast	Cervix uteri	Ovary
			A00–R99 V01–Y89	(C15)	(C16)	(C18)	(C19–C21)	(C33–C34)	(C43)	(C44)	(C50)	(C53)	(C56)
Males													
1971	288.4	1,207	13,466	76	317	187	144	1,066	10	12	4	:	:
1981	289.0	1,196	12,189	90	251	181	135	1,028	17	9	3	:	:
1991	277.6	1,125	10,291	117	185	194	117	842	23	10	3	:	:
1998	264.7	1,064	8,981	129	132	169	95	643	26	8	3	:	:
1999	264.3	1,044	8,862	127	127	161	90	611	27	7	2	:	:
2000	255.5	1,005	8,437	128	118	158	89	592	28	7	2	:	:
2001	252.4	987	8,188	129	111	155	89	570	26	7	3	:	:
2002	253.1	985	8,081	131	110	151	90	559	27	8	3	:	:
2003	253.9	982	8,000	135	102	145	90	539	28	8	2	:	:
2004	244.1	939	7,554	129	95	143	92	521	30	9	2	:	:
2005	243.3	929	7,356	132	93	137	92	515	28	8	2	:	:
2006	240.9	913	7,123	131	83	132	90	509	31	7	2	:	:
2007	240.8	906	6,949	128	82	128	88	498	31	8	3	:	:
2006 March	66.5	1,023	7,931	131	82	134	98	522	32	7	2	:	:
June	59.4	904	7,058	132	82	128	87	504	30	7	2	:	:
Sept	55.5	835	6,536	128	81	133	85	497	29	7	1	:	:
Dec	59.5	894	6,985	131	86	133	91	515	31	8	3	:	:
2007 March	65.4	998	7,616	126	88	132	86	523	33	7	2	:	:
June	58.2	879	6,756	130	84	122	86	493	31	8	3	:	:
Sept	55.2	824	6,340	128	80	126	87	470	29	7	3	:	:
Dec	62.0	926	7,096	129	78	132	94	509	31	9	3	:	:
2008[3] March	64.4[p]	967[p]	7,288[p]	135[p]	80[p]	132[p]	88[p]	508[p]	29[p]	5[p]	1[p]	:	:
June	58.9[p]	884[p]	6,700[p]	125[p]	77[p]	130[p]	90[p]	476[p]	33[p]	8[p]	2[p]	:	:
Sept	55.3[p]	821[p]	6,252[p]	126[p]	79[p]	129[p]	91[p]	483[p]	30[p]	8[p]	2[p]	:	:
Females													
1971	278.9	1,104	8,189	40	149	176	79	183	14	6	379	83	126
1981	288.9	1,134	7,425	42	111	157	74	252	16	5	405	69	121
1991	292.5	1,122	6,410	50	74	146	61	300	18	4	401	54	118
1998	290.3	1,108	5,945	49	54	117	47	291	21	3	328	35	116
1999	291.8	1,097	5,929	52	51	115	46	289	20	3	319	33	111
2000	280.1	1,049	5,655	51	48	107	45	285	21	3	311	33	109
2001	277.9	1,038	5,543	48	46	103	45	283	20	3	308	31	112
2002	280.4	1,043	5,524	51	44	103	44	284	19	3	302	29	112
2003	284.4	1,055	5,575	50	42	98	46	285	20	3	293	27	108
2004	268.4	1,075	5,206	48	41	96	46	283	19	3	278	26	100
2005	269.4	990	5,188	48	39	96	46	290	21	3	284	26	102
2006	261.7	956	4,989	48	35	93	46	300	19	4	277	24	99
2007	263.3	957	4,921	47	35	92	48	300	21	4	267	24	96
2006 March	74.5	1,104	5,658	48	40	90	45	309	16	4	296	26	105
June	64.4	945	4,940	46	34	89	46	294	18	4	266	22	101
Sept	59.1	856	4,540	47	33	99	44	289	19	3	272	23	96
Dec	63.7	923	4,832	51	34	95	49	307	21	4	273	23	93
2007 March	74.0	1,091	5,523	50	35	92	49	315	22	4	284	25	95
June	62.8	916	4,757	48	31	88	45	296	22	4	267	22	97
Sept	58.8	847	4,408	40	37	91	47	285	21	3	251	22	97
Dec	67.7	976	5,007	51	37	96	49	306	20	4	269	25	94
2008[3] March	71.7[p]	1,042[p]	5,252[p]	50[p]	35[p]	86[p]	47[p]	301[p]	20[p]	3[p]	269[p]	24[p]	93[p]
June	63.8[p]	927[p]	4,758[p]	46[p]	36[p]	86[p]	47[p]	297[p]	21[p]	3[p]	259[p]	23[p]	91[p]
Sept	58.8[p]	844[p]	4,402[p]	43[p]	34[p]	94[p]	45[p]	299[p]	23[p]	3[p]	253[p]	23[p]	92[p]

Note: Figures represent the number of deaths registered in each year up to 1992 and the number of deaths occurring in each year from 1993 to 2005. The number of deaths for 2006 onwards relate to registrations.
The rates by cause of death in this table are based on final underlying cause. For further details see the Explanatory Notes in the 'Report: Death registrations in England and Wales, 2004: causes' in HSQ26.
Death rates from 2002 to 2005 have been updated to include the latest revised mid-year population estimates that take into account improved estimates of international migration.

1 The Ninth Revision of the International Classification of Diseases, 1975, came into operation in England and Wales on 1 January 1979. The Tenth Revision of the International Classification of Diseases, 1992, came into operation in England and Wales on 1 January 2001. The cause descriptions and codes relate to ICD-10. For changes to this table see 'In Brief', Health Statistics Quarterly 14.
2 Directly age-standardised to the European Standard Population. See Notes to Tables.
3 Death rates for 2008 are provisional and based on the 2006-based population projections for 2008.
p Provisional.

Table 6.3 continued **Deaths: selected causes (International Classification)[1] and sex**

England and Wales

Age-standardised rates[2] per million population for selected causes

Malignant neoplasms													
Prostate	Bladder	Leukaemia	Diabetes mellitus	Ischaemic heart disease	Cerebro vascular diseases	Pneumonia	Bronchitis, emphysema and other chronic obstructive pulmonary disease	Asthma	Gastric and duodenal ulcer	Diseases of the liver	Land transport accidents	Intentional self-harm and events of undetermined intent	Year and quarter
(C61)	(C67)	(C91–C95)	(E10–E14)	(I20–I25)	(I60–I69)	(J12–J18)	(J40–J44)	(J45–J46)	(K25–K27)	(K70–K76)	(V01–V89)	(X60–X84, Y10–Y34)	
													Males
198	124	74	82	3,801	1,541	920	944	21	107	41	209	124	1971
214	121	74	82	3,664	1,141	1,053	683	28	90	58	119	151	1981
304	121	77	131	2,984	940	391	606	31	73	76	125	160	1991
277	99	67	94	2,215	706	720	463	18	60	115	86	152	1998
272	93	67	94	2,095	673	770	474	18	64	119	86	151	1999
260	92	67	88	1,959	622	735	416	17	59	119	86	141	2000
274	93	70	94	1,872	690	388	403	16	55	139	86	134	2001
271	90	68	91	1,784	690	388	396	15	56	144	83	131	2002
273	87	71	91	1,703	662	408	411	14	53	157	84	129	2003
267	85	67	83	1,566	595	360	364	15	50	151	77	125	2004
256	80	67	79	1,470	555	353	368	12	46	156	75	118	2005
250	81	68	74	1,353	520	320	343	10	45	161	83	123	2006
247	81	66	71	1,280	481	303	337	11	39	162	79	119	2007
256	79	73	86	1,543	611	434	440	11	52	158	83	128	2006 March
249	81	63	75	1,351	506	318	351	10	48	164	90	117	June
241	83	67	66	1,210	454	242	271	11	41	158	77	112	Sept
252	80	69	71	1,312	509	287	312	8	41	164	82	134	Dec
252	83	66	77	1,442	541	395	433	11	44	178	84	115	2007 March
246	80	69	65	1,249	465	286	311	11	37	154	77	121	June
233	78	61	65	1,146	429	226	265	9	35	152	73	116	Sept
257	82	69	75	1,287	489	306	339	11	40	167	82	125	Dec
239[P]	75[P]	64[P]	75[P]	1,324[P]	514[P]	363[P]	412[P]	11[P]	47[P]	164[P]	67[P]	107[P]	2008 March
228[P]	78[P]	65[P]	72[P]	1,191[P]	453[P]	283[P]	321[P]	8[P]	39[P]	160[P]	70[P]	121[P]	June
238[P]	76[P]	61[P]	69[P]	1,069[P]	409[P]	225[P]	260[P]	8[P]	34[P]	161[P]	66[P]	137[P]	Sept
													Females
:	32	47	89	1,668	1,352	624	193	25	44	31	82	84	1971
:	35	47	66	1,601	1,012	740	155	30	57	43	41	81	1981
:	34	44	95	1,407	812	325	211	30	46	49	45	51	1991
:	32	41	65	1,055	645	546	226	22	41	64	28	43	1998
:	30	45	65	986	629	591	241	22	39	67	28	45	1999
:	31	39	62	907	577	546	216	20	41	68	24	45	2000
:	29	41	62	878	620	307	220	19	39	77	23	40	2001
:	30	43	65	843	616	316	224	20	37	79	24	41	2002
:	30	39	66	811	606	337	244	20	36	81	24	41	2003
:	28	39	60	736	548	296	214	17	35	78	20	38	2004
:	28	39	57	686	519	298	224	17	32	81	22	38	2005
:	29	36	54	629	478	261	213	16	29	87	24	39	2006
:	27	38	53	592	455	251	218	14	26	87	23	35	2007
:	29	42	60	733	551	371	283	19	37	87	25	40	2006 March
:	27	34	56	637	477	259	214	16	27	85	27	37	June
:	29	35	51	562	427	186	163	13	27	86	21	41	Sept
:	29	35	51	585	459	231	193	16	25	89	23	38	Dec
:	29	40	58	689	517	353	298	18	28	96	23	33	2007 March
:	29	36	49	569	439	228	204	14	27	86	27	31	June
:	24	34	50	520	399	178	156	12	24	80	22	35	Sept
:	26	41	56	591	464	249	217	14	26	86	20	39	Dec
:	29[P]	36[P]	54[P]	613[P]	487[P]	320[P]	262[P]	17[P]	28[P]	90[P]	20[P]	33[P]	2008[3] March
:	27[P]	36[P]	51[P]	547[P]	432[P]	237[P]	206[P]	14[P]	26[P]	85[P]	22[P]	39[P]	June
:	25[P]	36[P]	46[P]	499[P]	381[P]	170[P]	159[P]	11[P]	27[P]	78[P]	28[P]	40[P]	Sept

See notes opposite.

Report:

Conceptions in England and Wales, 2007

Emily Shrosbree
Office for National Statistics

This report contains provisional estimated numbers and rates of conceptions for women usually resident in England and Wales in 2007.

Key observations

- In 2007 there were an estimated 894,100 conceptions in England and Wales, compared with 870,000 in 2006, an increase of 2.8 per cent (Table 1). The number of conceptions has decreased between 1996 and 2001 and has been steadily increasing since 2002.
- Nearly four-fifths of these conceptions resulted in a maternity. This proportion has remained fairly stable over the past 12 years (Table 1).
- The relative proportions of conceptions inside and outside marriage have been changing for some time. In 2007, 56 per cent of conceptions were outside marriage compared with 49 per cent in 1996. In 2007, 93 per cent of conceptions inside marriage resulted in a maternity compared with 67 per cent of conceptions outside marriage (Table 1).

Table 1 **All age, under 20 and under 16 conceptions (numbers and percentages): outcome by occurrence within/outside marriage**

England and Wales — Residents

	Age of woman at conception[1]/year of conception											
	All ages				Under 20				Under 16			
	1996	2001	2006	2007[2]	1996	2001	2006	2007[2]	1996	2001	2006	2007[2]
All conceptions												
Base number (thousands)	**816.9**	**763.7**	**870.0**	**894.1**	**94.9**	**96.0**	**103.1**	**106.1**	**8.9**	**7.9**	**7.8**	**8.2**
Percentage leading to:												
maternity	79	77	78	78	64	60	58	57	51	44	40	39
legal abortion	21	23	22	22	36	40	42	43	49	56	60	61
Conceptions inside marriage												
Base number (thousands)	**416.3**	**359.2**	**383.9**	**391.0**	**6.5**	**6.3**	**4.6**	**4.4**	:	:	:	:
Percentage leading to:												
maternity	92	91	93	93	94	94	92	91	:	:	:	:
legal abortion	8	9	7	7	6	6	8	9	:	:	:	:
Conceptions outside marriage												
Base number (thousands)	**400.6**	**404.4**	**486.0**	**503.0**	**88.4**	**89.7**	**98.5**	**101.8**	**8.8**	**7.9**	**7.8**	**8.2**
Percentage leading to:												
maternity outside marriage registered by mother alone	13	11	9	9	18	15	12	12	23	19	16	15
maternity outside marriage registered by both parents	47	48	52	54	40	40	43	43	27	24	24	24
maternity inside marriage	6	5	4	4	3	2	1	1	1	–	–	–
legal abortion	34	36	34	33	38	43	43	44	49	56	60	62

1 Conceptions leading to maternities or legal abortions – those which result in spontaneous miscarriage are not included.
2 Figures for 2007 are provisional.

- Conception rates for women aged 30 and over have increased substantially since 1990, particularly among those aged 35 and over (Figure 1). Between 2006 and 2007, the largest increase in rate occurred in the 30–34 age group, rising from 117.5 conceptions per thousand women aged 30–34 to 121.7, an increase of 3.6 per cent (Table 2).

- The under 20 conception rate increased by 2.2 per cent between 2006 and 2007 from 60.2 to 61.5 conceptions per thousand women aged 15–19 (Table 2). Conception rates for women aged under 20 decreased in the early 1990s before increasing between 1995 and 1998. This was followed by a general decrease between 1999 and 2006, with the exception of a slight increase between 2003 and 2004 (Figure 1).

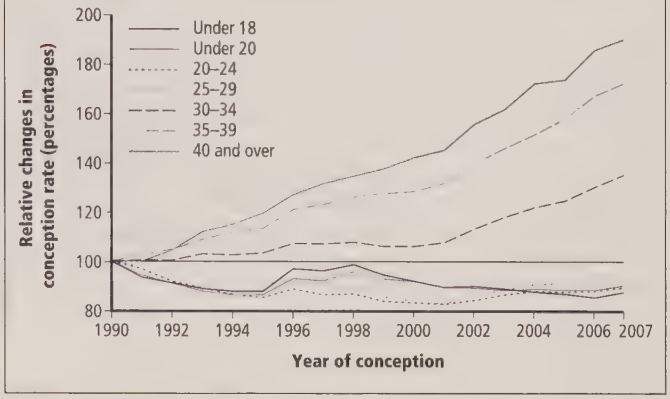
- The estimated number of conceptions to girls aged under 16 increased by 4.7 per cent from 7,826 in 2006 to 8,196 in 2007. Nearly three-quarters of those conceptions were to 15-year-old girls (Table 2).

- The under 16 conception rate in 2007 was 8.3 conceptions per thousand girls aged 13–15 compared with 7.8 in 2006, an increase of 6.4 per cent (Table 2).

- In 2007, the estimated number of conceptions to women aged under 18 was 42,918 compared with 41,768 in 2006. Of these, 50 per cent led to a legal abortion, compared with 48 per cent in 2006 (Table 2).

- In 2007, the under 18 conception rate for England and Wales was 41.9 conceptions per thousand women aged 15–17 compared with 40.9 per thousand in 2006, an increase of 2.4 per cent (Table 2). This reverses the trend of decreasing conception rates for the under 18 age group seen since 2002 when it was 42.9 per thousand women aged 15–17.

Figure 1 Relative changes in age-specific conception rates, 1990–2007



- For women usually resident in England, the under 18 conception rate rose by 2.7 per cent from 40.6 conceptions per thousand women aged 15–17 in 2006 to 41.7 in 2007. Comparison of rates by Strategic Health Authorities in England, shows that the North East had the highest under 18 conception rate in 2007 at 52.9 per thousand women aged 15–17 and South Central had the lowest rate at 32.1 per thousand (Table 3).

Table 2 Conceptions (numbers, rates and percentages leading to legal abortion) by age of woman at conception

England and Wales — Residents

	All conceptions (base numbers)		Percentage leading to legal abortion		Conception rates per 1,000 women[1]	
	2006	2007[2]	2006	2007[2]	2006[3]	2007[2]
Under 14	295	380	63.1	61.3	0.9	1.2
14	1,764	1,898	65.4	65.8	5.2	5.8
15	5,767	5,918	57.9	60.0	16.8	17.5
Under 16	7,826	8,196	59.8	61.4	7.8	8.3
16	13,107	13,554	48.7	50.6	38.6	39.3
17	20,835	21,168	44.0	45.2	61.3	61.9
Under 18	41,768	42,918	48.4	50.0	40.9	41.9
18	28,494	28,915	39.1	39.5	82.1	83.9
19	32,858	34,299	35.9	36.0	95.7	96.8
	(thousands)	(thousands)				
Under 20	103.1	106.1	41.9	42.6	60.2	61.5
20–24	191.2	198.3	28.7	28.3	109.5	111.4
25–29	222.2	234.2	18.0	17.5	129.5	133.4
30–34	212.4	211.1	13.1	12.7	117.5	121.7
35–39	115.4	117.8	17.1	16.7	56.3	58.1
40 and over	25.5	26.5	31.8	31.1	12.3	12.6
All ages	870.0	894.1	22.3	22.0	78.3	80.3

1 Rates for women of all ages, under 14, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15–44, 13, 13–15, 15–17, 15–19 and 40–44 respectively.
2 Figures for 2007 are provisional. Rates for 2007 are based on mid-year population estimates for 2007.
3 Rates for 2006 are based on mid-year population estimates for 2006.

Explanatory notes

Conceptions data combine information from registration of births and notifications of legal abortions occurring in England and Wales for women who are usually resident there.

Under arrangements made following implementation of the *Abortion Act 1967*, the Office for National Statistics and its predecessors processed and analysed the abortion notification forms (HSA4) sent to the Chief Medical Officers of England and Wales. From 1 April 2002, the Department of Health took over this work and the system has been redesigned to process the new abortion notification forms that were introduced from 18 April 2002. The *Abortion Act 1967* also enables the Chief Medical Officers to supply information about abortions to the UK Statistics Authority.

Conception statistics include pregnancies that result in:

- one or more live- or stillbirths (a maternity)
- a legal abortion under the *Abortion Act 1967* (an abortion)

They do not include miscarriages or illegal abortions.

Date of conception

The date of conception is estimated using recorded gestation for abortions and stillbirths, and assuming 38 weeks gestation for live births.

Age at conception

A woman's age at conception is calculated as the number of complete years between her date of birth and the date she conceived. In many cases her birthday will occur between conception and the birth or abortion; a woman may conceive, for example, at age 19 and give birth at age 20. The conception and birth may also occur in different calendar years. For these reasons the number of conceptions to women of a given age in a given year does not match the number of maternities and abortions to women of the same given age in the same given year.

In the provisional 2007 conceptions dataset 1.0 per cent of all maternities records were originally missing the mother's date of birth from the birth registration. Where the mother's date of birth was not stated and the birth record was successfully linked to the NHS birth notification, the mother's date of birth was taken from this source (0.6 per cent of all conceptions). Where such linkage was unsuccessful and the birth was in 2007, missing values have been imputed using CANCEIS (0.1 per cent of all conceptions). Where the birth was in 2008, the record has been excluded from the dataset (0.1 per cent of all conceptions) as it has not been imputed using CANCEIS.

Area of usual residence

Numbers and rates of conceptions are given by mother's usual area of residence based on boundaries as at 1 July 2006. The postcode of the woman's address at the time of the maternity or abortion was used to determine the health authority she was living in at the time of the conception. Direct comparisons with conceptions data by area published in previous years are not always possible because of boundary changes.

Table 3 **Conceptions (numbers and rates): by area of usual residence and age of woman, 2007[1]**

England and Wales — Residents

Area	Age of woman at conception															
	All ages		Under 18		Under 20		20–24		25–29		30–34		35–39		40 and over	
	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]	Number (thousands)	Rates[2]
England and Wales	**894.1**	**80.3**	**42.9**	**41.9**	**106.1**	**61.5**	**198.3**	**111.4**	**234.2**	**133.4**	**211.1**	**121.7**	**117.8**	**58.1**	**26.5**	**12.6**
England	850.4	80.6	40.3	41.7	99.7	61.3	187.4	111.5	223.0	133.4	201.9	122.2	112.9	58.7	25.5	12.8
Wales	43.7	75.5	2.6	44.9	6.4	64.9	10.9	109.9	11.3	134.3	9.2	111.5	4.9	47.5	1.0	9.4
Strategic Health Authorities in England																
North East	37.2	72.2	2.6	52.9	6.0	70.8	9.5	105.0	9.7	126.7	7.4	102.3	3.8	42.1	0.7	7.4
North West	111.7	80.1	6.5	47.0	15.7	67.7	27.7	117.2	29.2	140.9	23.6	116.7	12.9	51.4	2.6	9.8
Yorkshire and the Humber	82.2	77.3	4.8	47.6	11.8	68.2	20.5	108.3	21.6	132.4	17.4	113.1	9.1	47.9	1.9	9.6
East Midlands	66.2	74.5	3.4	40.3	8.4	58.3	15.6	105.6	17.7	136.2	14.7	112.1	8.2	49.6	1.7	9.9
West Midlands	91.5	84.7	5.1	47.4	12.3	69.0	22.9	129.8	24.3	147.6	19.3	120.9	10.4	52.8	2.3	11.3
East of England	86.6	77.1	3.5	33.1	9.0	51.3	17.4	105.6	23.4	137.7	22.1	124.4	12.1	56.9	2.6	11.6
London	175.7	95.5	5.7	45.6	14.9	70.0	34.9	125.2	46.7	124.9	45.8	130.3	26.6	82.7	6.8	22.5
South East Coast	64.3	77.2	2.8	33.5	6.9	51.6	11.9	102.2	15.7	130.8	17.2	133.7	10.1	63.1	2.4	14.0
South Central	63.8	76.8	2.5	32.1	6.3	49.3	12.4	95.5	16.4	129.1	17.1	130.4	9.5	61.5	2.2	13.4
South West	71.3	72.8	3.5	36.0	8.4	51.4	14.7	96.6	18.3	131.3	17.4	120.2	10.3	56.2	2.3	11.4

1 Figures for 2007 are provisional. Rates for 2007 are based on mid-year population estimates for 2007.
2 Rates per 1,000 women. Rates for women of all ages, under 18, under 20 and 40 and over are expressed per 1,000 women aged 15-44, 15-17, 15-19 and 40-44 respectively.

Report:

Congenital anomaly notifications 2007, England and Wales

Elizabeth McLaren and Vera Ruddock
Office for National Statistics

Key findings

- There were 5,077 children born in England and Wales in 2007 notified to the National Congenital Anomaly System as having one or more congenital anomalies
- In 2007, 44 per cent of all births in England and Wales were to mothers living in areas covered by a local congenital anomaly register
- The notification rate for areas of England and Wales covered by a local congenital anomaly register was 131.6 per 10,000 live and stillbirths, compared with 30.1 per 10,000 for areas not covered by a local register
- The notification rate for cardiovascular anomalies in areas covered by local registers was over ten times the rate in areas without a local register

Background

The National Congenital Anomaly System (NCAS) was set up in 1964 to monitor the occurrence of congenital anomalies in England and Wales. A congenital anomaly is a structural or functional abnormality of the human body that develops before birth. Reporting of affected live and stillbirths to the system is voluntary. The main purpose of NCAS is public health surveillance, but the system also provides the only national data on the number of children born with congenital anomalies. The system is maintained by the Office for National Statistics (ONS).

In 2007 a new classification of congenital anomalies was introduced.[1] The new classification has been developed in conjunction with the British Isles Network of Congenital Anomaly Registers (BINOCAR).[2] The new coding framework, which is based on the European Surveillance of Congenital Anomalies (EUROCAT) guide to coding congenital anomalies,[3] incorporates tighter rules for deciding which cases should be included in ONS congenital anomaly statistics.

ONS receives data from two sources: electronically from local congenital anomaly registers for the areas covered by a register, and on paper SD56 forms directly from NHS Trusts in areas without a local register.[1] In 2007 ONS received data from eight local registers. These covered 41 per cent of births in England and all births in Wales (Box One). The North Thames (West) Congenital Malformation Register ceased sending records to NCAS in September 2007 due to loss of funding so figures for this register are incomplete.

The local registers ascertain cases of congenital anomalies from multiple sources including SD56 forms from NHS Trusts, and information from cytogenetic laboratories, neonatal units, and other hospital and community child health services. Cases can be added to NCAS at any time after the birth.

It is recognised that there is under-reporting in NCAS, particularly in the areas not covered by local registers.[4,5] Table 1 shows the numbers and rates of notifications from 1997 to 2007 for England and Wales, the area covered by each local register, and the rest of England. Notification rates for areas now covered by local registers all increased as the registers began participating in electronic data transfer to NCAS; for example, the rate in the South West was 93.7 per 10,000 live and stillbirths in 2002 and rose to 313.5 per 10,000 in 2003, when the South West register began submitting data to NCAS. In 1997 all data submitted to NCAS was on a SD56 form; by 2007, 79 per cent of congenital anomaly notifications were for births from areas covered by local congenital anomaly registers. However, only 44 per cent of all births in England and Wales occurred within these areas.

A 2005 study compared ascertainment of anomalies on NCAS with data on four local English congenital anomaly registers, for births that occurred during the period 1991–1999.[4] This was before those local registers started submitting data to NCAS. The overall ascertainment by NCAS was 40 per cent; ascertainment rates by condition varied from 12 per cent for cardiac defects to 75 per cent for cleft lip. The issue of under-reporting in NCAS in areas not covered by registers in NCAS was also acknowledged in the Chief Medical Officer for England's Annual Reports for 2004 and 2005.[6]

The overall operation of NCAS will be reviewed during 2009 and ONS will be consulting on the requirements for statistics on congenital anomalies.

Notifications in 2007

There were 5,077 children born in 2007 notified to NCAS (Table 1). Of these, 3,988 (79 per cent) were born to mothers resident in an area covered by a local congenital anomaly register. The notification rate for these register areas was 131.6 notifications per 10,000 live and stillbirths compared with 30.1 per 10,000 for the parts of England not covered by a local register. A comparison

Box one

Local registers exchanging data electronically with ONS

Year register began sending data	Register
1998	Welsh Congenital Anomaly Register and Information Service (CARIS)
1999	East Midlands & South Yorkshire Congenital Anomaly Register
2000	North Thames (West) Congenital Malformation Register[1]
2000	Merseyside and Cheshire Congenital Anomaly Survey
2002	Wessex Antenatally Detected Anomalies Register (WANDA)[1]
2002	Congenital Anomaly Register for Oxfordshire, Berkshire & Buckinghamshire (CAROBB) (Oxfordshire only prior to 2004)
2003	Northern Congenital Abnormality Register (NorCas)
2003	South West Congenital Anomaly Register

Area coverage of each local congenital anomaly register. Areas are health authorities (1996–2001) and former strategic health authorities (2002–06) unless otherwise stated. Some of the areas in 2007 used other geographic codes to delineate the registers as noted below.

Boundaries used are those in existence at the time of the birth.

East Midlands & South Yorkshire congenital anomaly register is comprised of Derbyshire, Leicestershire, Lincolnshire, Northamptonshire (since 2003), Nottinghamshire, South Yorkshire, South Humber (1996–2001), North Lincolnshire PCT (2002 onwards), North East Lincolnshire PCT (2002 onwards). Areas excluded from East Midlands & South Yorkshire register (and England & Wales as a whole) in 2006: South Derbyshire, Lincolnshire and Nottinghamshire.

North Thames (West) is comprised of Bedfordshire, Hertfordshire, Hillingdon, Barnet, Ealing, Hammersmith and Hounslow, Kensington, Chelsea and Westminster, Brent and Harrow. This register ceased sending records to NCAS in September 2007 so the count for 2007 is an underestimate.

Merseyside is comprised of Cheshire and Mersey.

Prior to 2007, Oxford is comprised of Oxfordshire, Berkshire (2004 onwards) and Buckinghamshire (2004 onwards).
From 2007, Oxford is composed of the counties of Oxfordshire and Buckinghamshire plus the Unitary Authorities of Bracknell, West Berkshire, Reading, Slough, Windsor & Maidenhead, Wokingham and Milton Keynes.

Prior to 2007, Wessex is comprised of Hampshire, Isle of Wight, Dorset, Salisbury LA (1996–2001), South Wiltshire PCT (2002 onwards).
From 2007, Wessex is comprised of the Unitary Authorities of Poole, Isle of Wight, Bournemouth, Portsmouth and Southampton plus the counties of Dorset, Hampshire (excluding parts of Hart and East Hampshire and the whole of Rushmore) plus the district of Salisbury and parts of the districts of Arun and Chichester.

Prior to 2007, Northern is comprised of Northumberland, Tyne and Wear, County Durham, Tees Valley, North Cumbria (1995–2001), Carlisle PCT (2002 onwards), Eden Valley PCT (2002 onwards), West Cumbria PCT (2002 onwards).
From 2007, Northern is composed of the new North East Strategic Health Authority plus the districts of Allerdale, Carlisle, Copeland and Eden.

Prior to 2007, South West is comprised of Avon, Cornwall, Devon, Gloucestershire, Somerset, Wiltshire excluding – Salisbury LA (1995–2001)/ South Wiltshire PCT (2002 onwards).
From 2007, South West is composed of the new Primary Care Organisations of South Gloucestershire, Plymouth Teaching, Bath & North East Somerset, Swindon, North Somerset, Gloucestershire, Bristol, Somerset, Cornwall & Isles of Scilly, Devon plus the new Wiltshire Primary Care Organisation that contains the districts of Kennet, North Wiltshire and West Wiltshire.

1 These registers are hospital based. Denominators use area boundaries which are not necessarily exact matches to the areas covered by the registers.

of notification rates across registers shows that Wales had the highest notification rate in 2007 (223.5 notifications per 10,000 live and stillbirths).

Due to the change in the classification of congenital anomalies, figures for the total number of notifications and overall notification rates for 2007 are not comparable with those for earlier years. However, the numbers and rates for specific anomalies will be comparable, provided the International Classification of Diseases, Tenth revision codes used are unchanged. Table 2 examines the impact of adopting the new coding framework on statistics for 2006 based on notifications on NCAS when figures for 2006 were first published in January 2008.

In addition, the incomplete data from the North Thames (West) register also has an impact on time series analysis. In 2007, there were only 316 notifications from this register in comparison to 700 in the previous year.

Tables 3 and 4 show trends in the numbers and rates of notification for areas covered, and areas not covered, by a local register. In these tables a birth is counted as within a register area if the mother was living at a postcode covered by a register at the time of the birth.

Condition-specific notification rates

There were substantial differences in condition-specific notification rates between areas now covered by local registers and those without a register (Tables 3 and 4 respectively).

The largest difference was for cardiovascular anomalies, where the rate for areas covered by a register in 2007 was over ten times that for areas without a register (31.7 notifications per 10,000 live and stillbirths compared with 2.9 per 10,000 live and stillbirths). Cardiovascular anomalies are not readily apparent at birth and so may not be notified by a doctor or midwife on a SD56 form.[4] The local registers identify anomalies which become evident later in the child's life via alternative sources.

Cleft lip is a congenital anomaly which is highly visible at birth.[4] For this reason notifications to NCAS could be expected to be reasonably complete even for areas not covered by a local register. In 2007 the notification rate for non-register areas was less than half that of register areas (3.1 and 7.6 notifications per 10,000 live and stillbirths respectively). The size of this difference between rates for register and

Table 1 Congenital anomalies notification rates from registers[1] participating in electronic data transfer to the National Congenital Anomaly System (NCAS), 1997–2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006[2]	2007[2,3]
Number of babies notified											
England and Wales	5,967	6,820	7,985	8,556	7,960	7,834	8,391	7,886	8,070	7,198	5,077[4]
Wales	533	**1,547**	**1,379**	**1,518**	**1,383**	**1,339**	**1,311**	**1,235**	**1,162**	**1,076**	**773**
East Midlands & South Yorkshire	815	703	**1,648**	**1,583**	**1,689**	**1,610**	**1,229**	**1,142**	**1,288**	**750**	**615**
North Thames (West)	281	319	330	**493**	**475**	**440**	**500**	**600**	**844**	**700**	**316**[4]
Merseyside	216	214	238	**649**	**487**	**370**	**396**	**382**	**384**	**364**	**284**
Oxford	31	38	44	75	29	**71**	**78**	**271**	**383**	**332**	**217**
Wessex	228	191	223	189	220	**375**	**352**	**369**	**396**	**425**	**362**
Northern	313	296	322	287	262	319	**677**	**661**	**647**	**647**	**476**
South West	442	443	666	568	454	396	**1,383**	**1,423**	**1,404**	**1,362**	**945**
Rest of England	3,108	3,069	3,135	3,194	2,961	2,914	2,465	1,803	1,562	1,542	1,089
Percentage of all births in England and Wales covered by a local congenital anomaly register	–	5.3	14.4	26.7	25.9	32.8	41.0	44.0	44.0	43.9	43.7
Rates per 10,000 live and stillbirths											
England and Wales	92.3	106.7	127.8	140.9	133.2	130.7	134.3	122.6	124.3	111.6	76.3
Wales	153.6	**460.1**	**427.4**	**482.7**	**449.4**	**440.9**	**415.4**	**379.9**	**354.6**	**318.3**	**223.5**
East Midlands & South Yorkshire	136.2	118.1	**286.9**	**285.0**	**311.0**	**294.9**	**191.1**	**172.1**	**191.3**	**179.0**	**141.7**
North Thames (West)	56.4	64.0	66.6	**100.4**	**106.5**	**89.2**	**97.9**	**114.6**	**158.6**	**127.0**	**55.4**
Merseyside	77.2	77.8	89.6	**250.8**	**194.0**	**149.6**	**153.4**	**144.4**	**144.9**	**133.3**	**102.9**
Oxford	41.2	50.8	59.6	103.6	41.1	**102.3**	**104.5**	**97.7**	**138.4**	**114.3**	**73.0**
Wessex	79.2	66.4	80.4	70.6	84.6	**144.3**	**130.6**	**133.2**	**142.6**	**146.0**	**125.0**
Northern	94.6	91.9	103.5	96.4	90.2	108.5	**223.2**	**211.8**	**204.7**	**198.1**	**144.0**
South West	95.1	101.9	149.1	132.8	115.2	93.7	**313.5**	**317.5**	**310.4**	**290.3**	**194.3**
Rest of England	86.8	86.1	90.0	94.3	86.8	86.8	71.8	54.0	46.4	44.1	30.1

1 See Box One for details of areas covered by a local register.
2 Figures for 2006 and 2007 exclude data for some areas which used to be part of East Midlands & South Yorkshire congenital anomaly register.
3 A new exclusion list was implemented in 2007. Some minor anomalies excluded from counts for 2007 would have been included in figures for earlier years.
4 The North Thames (West) register ceased sending records to NCAS in September 2007 so the figures for 2007 are an underestimate.
Note: Data in bold indicate the years that the registers have been sending data to NCAS.

Source: National Congenital Anomaly System at 25 September 2008

Table 2 Impact of implementing BINOCAR Coding Framework on counts of notifications on National Congenital Anomaly System (NCAS)

Year	Date of extract	Number of babies on NCAS	Overall notification rate[1]	Cases with at least one cause in the Framework	Per cent excluded	New notification rate[1]
Areas covered by a register						
2006	17 October 2007	5,123	173.2	4,458	13.0	150.7
2007	25 September 2008	4,416	145.8	3,988	9.7	131.6
Areas not covered by a register						
2006	17 October 2007	1,519	43.5	1,161	23.6	33.2
2007	25 September 2008	1,335	36.9	1,089	18.4	30.1

1 Rate per 10,000 live and stillbirths.

Source: National Congenital Anomaly System

non-register areas for this very visible condition suggests that some cases in non-register areas are not being reported to NCAS.

Other patterns in the data

Congenital anomaly notification rates were highest among children of mothers over 40 years old.[1] In areas covered by congenital anomaly registers the notification rate in 2007 for mothers under 20 years old was 153.0 per 10,000 live and stillbirths. Mothers aged 35 to 39 had the lowest notification rate (121.0 notifications per 10,000 live and stillbirths) and those aged over 40 years the highest (172.1 per 10,000). In areas not covered by a congenital anomaly register, mothers aged over 40 years also had the highest notification rate.

Notification rates were also higher for children who were part of multiple births.[1] In areas covered by local registers the notification rate for children who were part of a multiple birth in 2007 was 172.0 per 10,000 live and stillbirths, compared with 126.3 per 10,000 for singletons.

Research[7] linking congenital anomaly notifications to birth registrations between 1997 and 2001 showed that 14 per cent of birth registrations classified as part of a multiple birth were not recorded as such on their congenital anomaly registration. Only 2 per cent of registrations which were singleton births were not recorded as such on NCAS. It is not known whether this systematic bias in NCAS notifications still exists; if so the notification rate for multiple births is likely to be an underestimate.

Table 3 Congenital anomaly notifications, selected conditions, 2000–07[1]

England and Wales: Register areas[2]

Numbers and rates[3]

	2000		2001		2002		2003		2004		2005		2006[4]		2007[4,5]	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All babies notified using old exclusion list	4,243	261.9	4,034	260.6	4,205	213.7	5,926	231.2	6,083	215.0	6,508	228.0	5,656	191.2	4,416	145.8
All babies notified using new exclusion list[6]															3,988	131.6
Babies with a mention of:																
Central nervous system anomalies	215	13.3	198	12.8	255	13.0	289	11.3	365	12.9	352	12.3	316	10.7	226	7.5
Neural tube defects	48	3.0	36	2.3	62	3.2	70	2.7	81	2.9	61	2.1	53	1.8	55	1.8
Anencephalus	10	*0.6*	7	*0.5*	17	*0.9*	19	*0.7*	18	*0.6*	16	*0.6*	10	*0.3*	12	*0.4*
Spina bifida	32	2.0	21	1.4	38	1.9	43	1.7	52	1.8	34	1.2	36	1.2	36	1.2
Hydrocephalus	57	3.5	37	2.4	47	2.4	56	2.2	67	2.4	82	2.9	87	2.9	66	2.2
Cleft lip	117	7.2	135	8.7	145	7.4	226	8.8	242	8.6	257	9.0	199	6.7	229	7.6
Cleft palate[6]	91	5.6	91	5.9	96	4.9	120	4.7	137	4.8	165	5.8	133	4.5	115	3.8
Cardiovascular anomalies[6]	949	58.6	823	53.2	823	41.8	1,385	54.0	1,334	47.1	1,470	51.5	1,290	43.6	961	31.7
Hypospadias	273	16.4	299	18.8	268	13.5	394	15.1	389	13.4	496	17.0	447	14.8	342	11.3
Limb reductions	77	4.8	79	5.1	82	4.2	124	4.8	160	5.7	140	4.9	128	4.3	101	3.3
Gastroschisis	51	3.1	54	3.5	55	2.8	90	3.5	152	5.4	105	3.7	134	4.5	94	3.1
Down syndrome	166	10.2	165	10.7	165	8.4	276	10.8	366	12.9	379	13.3	319	10.8	243	8.0

1 Figures for 1998 and 1999 are omitted because they would be based on data from only two registers.
2 See Box One for details of areas covered by a local register.
3 Notification rate per 10,000 live and stillbirths.
4 Figures for 2006 and 2007 exclude data for some areas which used to be part of East Midlands & South Yorkshire congenital anomaly register.
5 The North Thames (West) register ceased sending records to NCAS in September 2007 so the figures for 2007 are an underestimate.
6 A new exclusion list was implemented in 2007. Some minor anomalies excluded from counts for 2007 would have been included in figures for earlier years.
Note: Rates calculated from fewer than 20 anomalies are distinguished by italic type as a warning to the user that their reliability as a measure may be affected by the small number of events.

Source: National Congenital Anomaly System at 25 September 2008

Table 4 Congenital anomaly notifications, selected conditions, 1997, 2000–07[1]

England and Wales: Non-register areas[2]

Numbers and rates[3]

	1997		2000		2001		2002		2003		2004		2005		2006		2007	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All babies notified using old exclusion list	5,967	92.3	4,313	96.9	3,926	88.7	3,629	90.2	2,465	66.9	1,803	50.1	1,562	42.9	1,542	44.1	1,335	36.9
All babies notified using new exclusion list[4]																	1,089	30.1
Babies with a mention of:																		
Central nervous system anomalies	220	3.4	199	4.5	188	4.2	176	4.4	131	3.6	86	2.4	98	2.7	66	1.9	58	1.6
Neural tube defects	80	1.2	75	1.7	65	1.5	53	1.3	54	1.5	38	1.1	37	1.0	23	0.7	20	0.6
Anencephalus	27	0.4	17	*0.4*	20	0.5	13	*0.3*	14	*0.4*	9	*0.2*	9	*0.2*	6	*0.2*	9	*0.2*
Spina bifida	48	0.7	48	1.1	39	0.9	34	0.8	41	1.1	25	0.7	24	0.7	14	*0.4*	9	*0.2*
Hydrocephalus	64	1.0	49	1.1	50	1.1	32	0.8	33	0.9	17	*0.5*	22	0.6	14	*0.4*	20	0.6
Cleft lip	379	5.9	277	6.2	237	5.4	217	5.4	146	4.0	120	3.3	96	2.6	115	3.3	111	3.1
Cleft palate[4]	202	3.1	127	2.9	111	2.5	110	2.7	81	2.2	54	1.5	55	1.5	43	1.2	33	0.9
Cardiovascular anomalies[4]	666	10.3	474	10.6	454	10.3	462	11.5	195	5.3	162	4.5	148	4.1	168	4.8	105	2.9
Hypospadias	471	7.3	368	8.3	340	7.7	288	7.1	194	5.2	148	4.1	111	3.0	113	3.1	90	2.5
Limb reductions	137	2.1	130	2.9	113	2.6	100	2.5	78	2.1	61	1.7	44	1.2	53	1.5	44	1.2
Gastroschisis	89	1.4	67	1.5	59	1.3	61	1.5	40	1.1	46	1.3	27	0.7	25	0.7	24	0.7
Down syndrome	411	6.4	244	5.5	215	4.9	192	4.8	132	3.6	112	3.1	109	3.0	110	3.1	96	2.7

1 Figures for 1998 and 1999 are omitted because the corresponding figures for register areas are based on data from only two registers.
2 See Box One for details of areas covered by a local register.
3 Notification rate per 10,000 live and still births.
4 A new exclusion list was implemented in 2007. Some minor anomalies excluded from counts for 2007 would have been included in figures for earlier years.
Note: Rates calculated from fewer than 20 anomalies are distinguished by italic type as a warning to the user that their reliability as a measure may be affected by the small number of events.

Source: National Congenital Anomaly System at 25 September 2008

References

1. Office for National Statistics (2009) *Congenital anomaly statistics: notifications England and Wales* 2007, Series MB3 no. **22**. Available on the Office for National Statistics website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=5799
2. The British Isles Network of Congenital Anomaly Registers, accessed 28 January 2009, available at: www.binocar.org
3. European Surveillance on Congenital Anomalies (EUROCAT) Guide 1.3 – Instructions for the Registration and Surveillance of Congenital Anomalies, accessed 28 January 2009, available at: www.eurocat.ulster.ac.uk/pubdata/Guide-1.3-Cover-Page.html
4. Boyd P A, Armstrong B, Dolk H *et al* (2005) 'Congenital anomaly surveillance in England – ascertainment deficiencies in the national system', *British Medical Journal* **330**, 27.
5. Misra T, Dattani N and Majeed A (2005) 'Evaluation of the National Congenital Anomaly System in England and Wales', *Archives of Disease in Childhood – Fetal and Neonatal Edition* **90**, F368–73.
6. Department of Health (2006) *On the state of the public health: Annual report of the Chief Medical Officer 2005,* accessed 28 January 2009 available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/AnnualReports/DH_4137366
7. Botting B J (2003) *Evaluation of strategies to improve case ascertainment and data quality in the National Congenital Anomaly System*, PhD thesis, University of London.

Acknowledgements

ONS is grateful for the work of external members of the BINOCAR coding committee in developing the new coding framework: David Tucker (Welsh Congenital Anomaly Register and Information Service), Diana Wellesley (Wessex Antenatally Detected Anomalies Register), Judith Budd (East Midlands & South Yorkshire Congenital Anomaly Register) and Maria Loane (EUROCAT).

Contact points

ONS Customer Contact Centre
Tel: 0845 601 3034
Email: info@statistics.gsi.gov.uk

ONS Health Statistics Quarterly
Tel: 020 7014 2389
Email: hsq@ons.gsi.gov.uk

ONS Population Trends
Tel: 01329 444683
Email: chris.w.smith@ons.gsi.gov.uk

ONS media enquiries
Tel: 0845 604 1858
Email press.office@ons.gsi.gov.uk

Department of Health Customer Service Centre
Tel: 020 7210 4850
Email: dhmail@dh.gsi.gov.uk

National Health Service Information Centre
Tel: 0845 300 6016
Email: enquiries@ic.nhs.uk

For statistical information on

Abortions
(Department of Health)
Tel: 020 7972 5537
Email: abortion.statistics@dh.gsi.gov.uk

Adoptions
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Births
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Cancer registrations
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Civil partnerships
Tel: 01329 444097
Email: vsob@ons.gsi.gov.uk

Clostridium difficile
Tel: 01633 455654
Email: mortality@ons.gsi.gov.uk

Conceptions
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Congenital anomalies
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Death registrations
see Mortality

Divorces
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Health expectancy
Tel: 01633 455925
Email: hle@ons.gsi.gov.uk

Life expectancy
Tel: 01633 455867
Email: healthgeog@ons.gsi.gov.uk

Marriages
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

Migration
Tel: 01329 444645
Email: migstatsunit@ons.gsi.gov.uk

Mortality
Tel: 01329 444110
Email: vsob@ons.gsi.gov.uk

MRSA
Tel: 01633 455654
Email: mortality@ons.gsi.gov.uk

Population estimates
Tel: 01329 444661
Email: pop.info@ons.gsi.gov.uk

Population projections: national
Tel: 01329 444652
Email: natpopproj@ons.gsi.gov.uk

Population projections: subnational
Tel: 01329 444669
Email: subnatproj@ons.gsi.gov.uk

Recent and future articles

Recent articles

Health Statistics Quarterly

No. 37 Spring 2008

Features:
Trends in suicide by marital status in England and Wales, 1982–2005
Clare Griffiths, Gita Ladva, Anita Brock and Allan Baker
Assessing quality of NHS Numbers for Babies data and providing gestational age statistics
Kath Moser and Lisa Hilder
Reports:
Health expectancies in the UK, 2004
Deaths involving *Clostridium difficile*: England and Wales, 1999 and 2001–06
Deaths involving MRSA, England and Wales, 1993–2006
Annual Update:
Congenital anomaly notifications, 2006, England and Wales

No. 38 Summer 2008

Features:
Geographical variations in premature mortality in England and Wales, 1981–2006
Claudia Wells and Emma Gordon
Social inequalities in male mortality for selected causes of death by the National Statistics Socio-economic Classification, England and Wales, 2001–03
Chris White, Grace Edgar and Veronique Siegler
Cancer incidence and mortality: trends in the United Kingdom and constituent countries, 1993–2004
Susan Westlake and Nicola Cooper
Reports:
Conceptions in England and Wales, 2006
Deaths involving MRSA and *Clostridium difficile* by communal establishment: England and Wales, 2001–06

No. 39 Autumn 2008

Features:
Differences in mortality between rural and urban areas in England and Wales, 2002–04
Andrea Garner, Daniel Farewell, Frank Dunstan and Emma Gordon
Geographic variations in deaths related to drug misuse in England and Wales, 1993–2006
Clare Griffiths, Ester Romeri, Anita Brock and Oliver Morgan
Birthweight and gestational age by ethnic group, England and Wales, 2005: introducing new data on births
Kath Moser, Kristina M Stanfield and David A Leon
Reports:
Deaths involving MRSA, England and Wales, 2003–07
Deaths involving *Clostridium difficile*: England and Wales, 2003–07
Unexplained deaths in infancy, 2006
Deaths related to drug poisoning in England and Wales, 2003–07
Death registrations in England and Wales, 2007, causes
Infant and perinatal mortality 2007: health areas, England and Wales

No. 40 Winter 2008

Features:
Regional differences in male mortality inequalities using the National Statistics Socio-economic Classification, England and Wales, 2001–03
Veronique Siegler, Ann Langford and Brian Johnson
Geographical trends in infant mortality: England and Wales, 1970–2006
Paul Norman, Ian Gregory, Danny Dorling and Allan Baker
Standardised Mortality ratios – the effect of smoothing ward-level results
Allan Baker, Martin Ralphs and Clare Griffiths
Reports:
Infant and perinatal mortality in England and Wales by social and biological factors, 2007
Excess winter mortality in England and Wales, 2007/08 (provisional) and 2006/07 (final)
Health expectancies in the United Kingdom 2004–06
Life expectancy at birth and at age 65 by local areas in the United Kingdom, 2005–07
Cancer incidence and mortality in the United Kingdom and constituent countries, 2003–05

Future articles

List is provisional and subject to change

Health Statistics Quarterly No. 42 Summer 2009 Publication May 2009

Articles
- Social inequalities in adult female mortality by the National Statistics Socio-economic Classification, England and Wales, 2001–03
- Development of National Statistics harmonised questions on disability and long-term illness

Reports
- Gestation-specific infant mortality by social and biological factors among babies born in England and Wales in 2006

Recent articles

Population Trends

No. 131 Spring 2008

Features:
2006-based national population projections for the UK and constituent countries
Helen Bray
Fertility assumptions for the 2006-based national population projections
Julie Jefferies
The proportion of marriages ending in divorce
Ben Wilson and Steve Smallwood
Annual Update:
Births in England and Wales, 2006

No. 132 Summer 2008

Features:
Estimating the changing population of the 'oldest old'
Ercilia Dini and Shayla Goldring
Age differences at marriage and divorce
Ben Wilson and Steve Smallwood
2007 Census Test: Evaluation of key objectives
Garnett Compton
Reports:
Marriages in England and Wales, 2006
Annual Update:
Marriages and divorces during 2005 and adoptions in 2006: England and Wales

No. 133 Autumn 2008

Features:
Have national trends in fertility between 1986 and 2006 occurred evenly across England and Wales?
Nicola Tromans, Eva Natamba, Julie Jefferies and Paul Norman
Home births in the UK, 1955–2006
Andrea Nove, Ann Berrington and Zoe Matthews
The development of a Postcode Best Fit methodology for producing population estimates for different geographies
Andy Bates
Reports:
Marriages abroad, 2002–07
Divorces in England and Wales during 2007
Subnational population projections for local authorities in Wales
Internal migration estimates for local and unitary authorities in England and Wales, year to mid-2007
Live births in England and Wales, 2007: area of residence
Death registrations in England and Wales, 2007: area of residence
Annual Updates:
Civil partnerships during 2007: United Kingdom

No. 134 Winter 2008

Features:
Ageing and mortality in the UK – National Statistician's annual article on the population
Karen Dunnell
Population 'turnover' and 'churn' – enhancing understanding of internal migration in Britain through measures of stability
Adam Dennett and John Stillwell
The National Population Projections Expert Advisory group: results from a questionnaire about future trends in fertility, mortality and migration
Chris Shaw
Annual Updates:
Births in England and Wales, 2007

Future articles

List is provisional and subject to change

Population Trends No. 135 Spring 2009 Publication March 2009

Articles
- What does the Census tell us about the new parliamentary constituencies?
- The 2011 Census taking shape: the selection of topics and questions
- UK resident population by country of birth

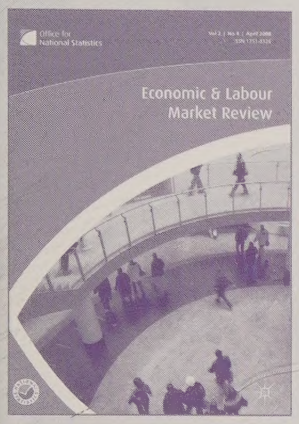
Reports
- The changing demography of Northern Ireland
- Marriages in England and Wales, 2007

Individual articles are available from the ONS data and publications website at: www.statistics.gov.uk/cci/articlesearch.asp
Complete back editions of *Health Statistics Quarterly* and *Population Trends* are available at:
Health Statistics Quarterly: www.statistics.gov.uk/statbase/Product.asp?vlnk=6725
Population Trends: www.statistics.gov.uk/statbase/Product.asp?vlnk=6303

Office for National Statistics

Economics and Finance Titles
from the Office for National Statistics

Economic & Labour Market Review

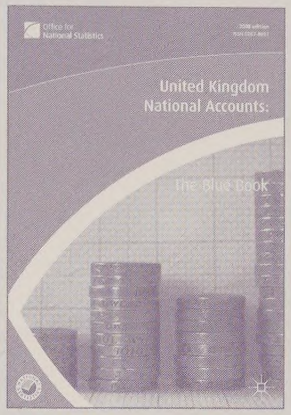


Launched in January 2007, *Economic & Labour Market Review* (ELMR) draws together the expert research, analysis and range of content found in *Economic Trends* and *Labour Market Trends* to build an up-to-date, comprehensive and unique statistical picture of the UK economy and labour market.

Visit **www.palgrave-journals.com/elmr/** for more information.

ISSN: 1751-8326
2009 Volume 3, Published Monthly
Annual Subscription: £224.00

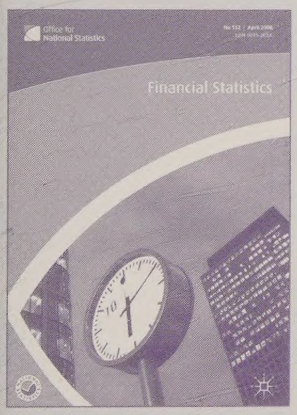
United Kingdom National Accounts 2008
The Blue Book



The key annual publication for national accounts statistics and the essential data source for anyone concerned with macro-economic policies and studies, *The Blue Book* provides detailed estimates of national product, income and expenditure for the UK. It covers value added by industry, full accounts by sector and capital formation. It also includes annual figures for preliminary, provisional and full quarterly estimates of national accounts.

November 2008 304pp 297 x 210mm
Paperback £49.50 978-0-230-54566-3

Financial Statistics

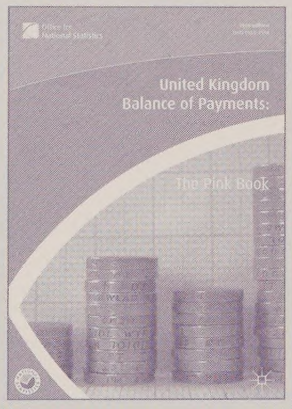


Published monthly, *Financial Statistics* contains data on public sector finance, including central government revenue and expenditure, money supply and credit, banks and building societies, interest and exchange rates, financial accounts, capital issues, balance sheets and balance of payments. Each subscription includes a copy of the *Financial Statistics Explanatory Handbook* (annual).

Visit **www.palgrave-journals.com/fs/** for more information.

ISSN: 0015-203X
2009 Volumes 561-572, Published Monthly
Annual Subscription: £390.00

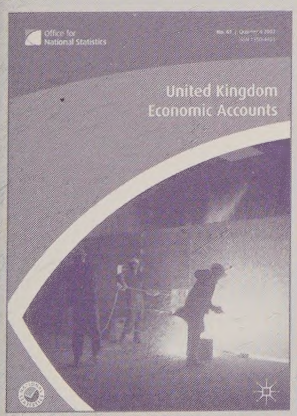
United Kingdom Balance of Payments 2008
The Pink Book



The Pink Book provides detailed estimates of the UK Balance of Payments for the last 11 years including estimates for the current account, the capital account, the financial account and the International Investment Position. It also includes a geographical breakdown of the current account by country.

November 2008 216pp 297 x 210mm
Paperback £49.50 978-0-230-54565-6

United Kingdom Economic Accounts



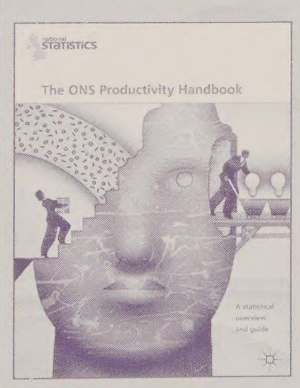
Previously available as a quarterly supplement to *Economic Trends*, *United Kingdom Economic Accounts* (UKEA) is now available via annual subscription.

UKEA provides detailed estimates of national product, income and expenditure for the United Kingdom.

Visit **www.palgrave-journals.com/ukea/** for more information.

ISSN: 1350-4401
2009 Volumes 64-67, Published Quarterly
Annual Subscription: £110.00

The ONS Productivity Handbook
A Statistical Overview and Guide



Written by specialists in productivity analysis, *The ONS Productivity Handbook* examines the importance and relevance of economic productivity and serves as a comprehensive reference on the subject. Areas covered include productivity analysis within various sectors and at firm level as well as measures of labour and capital inputs. The book reports on productivity theory and drivers, quality adjustment and plans for future developments in the field.

2007 200pp 246 x189mm
Paperback £57.50 978-0-230-57301-7

www.palgrave.com/ons/

palgrave macmillan

Health Statistics Quarterly

A quarterly publication containing feature analysis and commentary about topical health-related issues affecting the UK, together with related news items and key statistics on population, conceptions, abortions, births and deaths.

Features in this edition include:

- Trends in cancer survival in Spearhead Primary Care Trusts in England, 1998–2004
- Death certification following MRSA bacteraemia, England, 2004–05
- Estimating conception statistics using gestational age information from NHS Numbers for Babies data
- An investigation into the impact of question change on estimates of General Health Status and Healthy Life Expectancy

£35
Annual subscription £122
www.statistics.gov.uk

ISBN 978-0-230-57715-2
90101
9 780230 577152
www.palgrave.com
Printed in Great Britain